

Exhibit C

U.S. Department of State
Bureau of Overseas Buildings Operations

GUIDE TO EXCELLENCE IN DIPLOMATIC FACILITIES



U.S. Consulate General Guangzhou, China
Architect: Skidmore, Owings, & Merrill
American General Contractor: BL Harbert International
Photo Credit: ©Skidmore, Owings Merrill, LLP

GUIDE TO EXCELLENCE IN DIPLOMATIC FACILITIES

U.S. DEPARTMENT OF STATE
BUREAU OF OVERSEAS BUILDINGS OPERATIONS

**MESSAGE FROM
OBO DIRECTOR LYDIA MUNIZ**

As the single real property manager for the U.S. government's diplomatic facilities overseas, OBO's portfolio spans 285 worldwide missions, over 80,000,000 square feet of functioning property, and over \$7 billion in projects in design and under construction.

OBO's mandate is to provide secure facilities, and every new embassy we build meets very rigorous security and life safety standards. This has been our mission since the tragic bombings of the U.S. embassies in East Africa in 1998 and the subsequent enactment of the Secure Embassy Construction and Counterterrorism Act in 1999.

The Excellence initiative builds upon this critical mission and reemphasizes that embassies should represent the best in American architecture, design, engineering, technology, sustainability, art, and cultural heritage, as well as represent America to the host nation.

And because we have an obligation to the American taxpayer to be efficient and economical, I am committed to ensuring that our building program neither compromises the speed at which we can deliver secure facilities nor incurs unjustified and unnecessary costs.

To achieve this, OBO's management and staff are engaging with some of the finest professionals in real estate, architecture, engineering, construction, and facility management to develop ever-improving materials and solutions to lower operating costs, ensure durability, and provide flexibility as well as proximity to counterparts and users.

This is what Excellence in Diplomatic Facilities is about—establishing an enduring process to build upon the successes and lessons of the past to develop the next generation of secure, high performance embassies and consulates.

I know that security, safety, and excellence in diplomatic facilities are mutually reinforcing—not mutually exclusive—goals.

In an increasingly varied, complex and evolving world, we know that Excellence will meet the critical needs of our foreign missions. And in this constrained budget environment, we know that Excellence provides the best value for the American taxpayer.

Our mission is an important one, and I look forward to our continued successes.



OBO Director Lydia Muniz

TABLE OF CONTENTS

PREFACE	5
---------------	---

OVERVIEW

1. INTRODUCTION	11
2. GUIDING PRINCIPLES OF EXCELLENCE IN DIPLOMATIC FACILITIES	15
3. HISTORY	19
4. PORTFOLIO	25
5. FUNDING	29
6. ORGANIZATION AND PARTNERS	33
7. STATE DEPARTMENT AND PRIVATE SECTOR PROJECT TEAMS	43

PROJECT DEVELOPMENT & EXECUTION

8. NEW CONSTRUCTION PROGRAM	51
9. REHABILITATION, UPGRADE, AND IMPROVEMENT PROGRAM	57
10. PRIORITIZATION, SCHEDULING, AND DELIVERY METHOD	63
11. SITE SELECTION	67
12. EARLY PROJECT DEVELOPMENT	71
13. COST MANAGEMENT	75
14. DESIGN PROCESS	79
15. DESIGN STANDARDS AND GOALS	87
16. CONSTRUCTION	95
17. SECURITY MANAGEMENT	105
18. PROJECT TURNOVER	109

LONG-TERM OPERATIONS

19. FACILITY MANAGEMENT	117
20. FIRE PROTECTION AND SAFETY, HEALTH AND ENVIRONMENTAL MANAGEMENT	125
21. CULTURAL HERITAGE, ART IN EMBASSIES, AND RESIDENTIAL DESIGN	129

OVERVIEW





CHAPTER 1

INTRODUCTION

OVERVIEW

INTRODUCTION

U.S. diplomats protect the interests and promote the values of the United States and its citizens overseas. They negotiate with host governments to advance U.S. goals and bilateral economic, cultural, and scientific relations. They promote the export of U.S. goods and services. They report on events, conditions, and developments around the world. Embassies and consulates also represent the U.S. government to the host nation, and must provide a strong foundation for diplomacy, keeping staff and visitors safe, and facilitating American interaction with the host government and its citizens.

The Bureau of Overseas Buildings Operations (OBO) is the overseas real property manager for the Department of State—we buy, sell, lease, manage, design, build, and maintain the Department’s facilities abroad. With over 87 million square feet of space, our facilities are located in every climate in the world and in many challenging political environments. We contract with the private sector for most design and construction work, providing detailed requirements and guidance to ensure that the facilities meet our needs. The goal is to support America’s diplomats and staff in achieving U.S. foreign policy objectives and to provide safe, secure, and functional places for them to work and live.

Diplomatic and consular facilities designed and constructed to the highest standard of excellence promote not only the innovation of American architecture, engineering, and design disciplines, but U.S. advances in technology, manufacturing, and product design. The incorporation of achievements from these private sectors clearly demonstrates the important role of the United States as a global business leader.

This Guide to Excellence in Diplomatic Facilities addresses all aspects of the Department’s buildings program, from project conception through facility operations. It addresses the “who, what, where, when, why, and how” of a very complex organization. The Guide conveys the commitment of OBO’s leadership in support of excellent facilities and outlines the general policies to be applied to all projects.

OBO programs are conducted under the authorities of the Foreign Service Buildings Act, 22 U.S.C. 292-302. New Embassy construction is subject to the requirements of Section 402 of the Omnibus Diplomatic Security and Antiterrorism Act of 1986, 22 U.S.C. 4852. Acquisition of goods and services for OBO programs is generally conducted in accordance with the Federal Acquisition Regulation and the Department of State Acquisition Regulation, 48 CFR ch. 1, 6.

Achieving excellence is everyone’s responsibility. The successful implementation of these procedures relies upon a coordinated effort among OBO’s staff, our State Department colleagues, other U.S. government agencies with an overseas presence, and our private sector partners. All are challenged to apply the guidelines outlined here to deliver and maintain embassy and consulate complexes that represent the best of American architecture, design, engineering, technology, sustainability, art, culture, and construction. Collectively, we must design, construct, and maintain safe, secure, functional, and inspiring diplomatic facilities.

This Guide is intended to provide a broad overview of OBO’s goals, policies, and procedures. This Guide does not supersede nor modify any applicable laws or regulations, or any contract between the Department of State and another party.

CHAPTER 2

GUIDING PRINCIPLES OF EXCELLENCE IN DIPLOMATIC FACILITIES

OVERVIEW

GUIDING PRINCIPLES OF EXCELLENCE IN DIPLOMATIC FACILITIES

The Guiding Principles of Excellence in Diplomatic Facilities guide all of our work at OBO. Our facilities must provide U.S. diplomats and staff with a safe, secure, and functional workplace, in keeping with America's history and values. Delivering excellence is a comprehensive process that seeks to utilize the best methods, technologies, and staff abilities. These principles emphasize our commitment to thoughtful stewardship as we strive to represent the American people through the best of American architecture, design, engineering, construction, art, and technology. They are based on the 1962 Guiding Principles for Federal Architecture, which similarly encompassed site acquisition, design, construction, and operations and maintenance.

Purpose and Function

Embassies and consulates have two essential purposes: to be safe, secure, functional, and inspiring places for the conduct of diplomacy, and to physically represent the U.S. government to the host nation. A facility that represents the best of American architecture, design, engineering, and construction will be an appropriate workspace, contextually appropriate, and a respected landmark—representing the best of American government, enterprise, and culture—in the host nation.

Site

The site and location of an embassy have practical as well as symbolic implications. OBO will develop sites that best represent the U.S. government and its goals, and enhance the conduct of diplomacy. Whenever possible, sites will be selected in urban areas and close to counterparts, allowing U.S. embassies and consulates to contribute to the civic and urban fabric of host cities. Special attention will be paid to the general ensemble of surrounding buildings, streets, and public spaces of which embassies and consulates will form a part.

Design

The design of buildings and sites is a comprehensive process of understanding and balancing requirements and incorporating them into a thoughtfully conceived, cohesive, and inspiring whole. OBO will evaluate designs on the basis of their success in skillfully balancing requirements, and on how well the design represents the United States to the host nation. Designs are to be functionally simple and spatially flexible to meet changing needs and be enduring over time. An official embassy style will be avoided. Buildings are to be welcoming, while representing dignity, stability, innovation, humanity, and openness. Ostentation is not appropriate. Designs will be cost-effective, employing an economy of means and methods. Each design will be responsive to its context, to include the site, its surroundings, and the local culture and climate. The designs will make use of contextually appropriate and durable materials and incorporate the latest in security and safety features.

The grounds and landscaping will complement and engage the architecture, and together are to be conceived as an integrated whole. The grounds should be functional and representational spaces. They will be sustainable, include indigenous plantings, and incorporate existing site resources, such as mature trees, wherever possible.

Engineering

The engineering of facilities will incorporate the most advanced methods, systems, technologies, and materials appropriate to the facility and local conditions, including the site, climate, natural hazards, security, and the practical reality of construction, operations, and maintenance in the host nation.

Safety and Security

The safety and security of staff and visitors is paramount. Designs and construction will meet or exceed all security and safety standards and specifications. Architects and engineers will be challenged to develop ever-improving methods, materials, and solutions and to thoughtfully integrate these into overall designs.

Sustainability

Buildings and grounds will incorporate sustainable design and energy efficiency, and these features will be integrated into their design. Construction, maintenance, and operations practices will be sustainable. Particular attention will be given to the climate, context, and site conditions.

Architectural and Engineering**Professional Services**

OBO will hire leading American architects and engineers. Their selection will be based on the quality of their design achievements and portfolio of work. The selection methodology will be open, competitive, and transparent.

Construction and Craftsmanship

Construction professionals will be engaged throughout the process to ensure the best possible design and implementation. OBO is committed to using the best construction practices and craftsmanship possible and to selecting the most qualified building contractors with a record of delivering high quality projects.

Operations and Maintenance

Operations and maintenance professionals will be engaged throughout the design and construction process for new construction and renovation projects. Buildings and sites will be economical to operate and maintain and will utilize equipment and materials that are durable, dependable, and suitable. Designs will be based on life-cycle analysis of options that take into account long-term operations and maintenance concerns. Design intent and features will be maintained throughout the life of the facility, using the best stewardship practices.

Art

Embassy buildings and grounds are an opportunity to showcase the best of American and host nation art and culture. OBO is committed to integrating such art into its facilities such that each property will be both an individual expression of Excellence and part of a larger body of work representing the best that America's designers and artists can leave to later generations.

Historically, Architecturally, or Culturally Significant Properties and Collections

OBO is committed to preserving the Department's historical, cultural, and architectural legacy. The Secretary of State's Register of Culturally Significant Property is the official listing of important diplomatic architecture overseas and properties that figure prominently in our country's international heritage. OBO has established a world class stewardship program dedicated to the proper conservation and maintenance of the Department's culturally significant historical properties and assets.

CHAPTER 3

HISTORY

OVERVIEW

3. HISTORY

HISTORY

OBO's history and its role at the Department of State provide context for our work today. The Department of State began in 1790 with a handful of dedicated staff led by Thomas Jefferson. As U.S. political and economic power grew over time, the number of American missions and diplomats increased, requiring larger, more complex facilities. Congress gradually gave the State Department the ability to manage its own real estate portfolio—to purchase, sell, and construct much-needed facilities. Over the years, the pace of construction has ebbed and flowed, based upon available funding.

The first diplomatic missions were simple, as befitted a newly independent democracy. Initially, the United States had missions in only a few countries. The Tangier Legation, the oldest diplomatic property continuously owned by the United States, was a gift of the Sultan of Morocco in 1821. Previously, the United States had not held title to any foreign property. Diplomatic office buildings were then known as legations, since the United States did not officially send ambassadors until the late 19th century. Diplomats (who represented the U.S. government) and consuls (who handled passports, visas, and related business matters) were responsible for their own offices and lodgings throughout the 1800s. This restricted diplomatic service to those who could afford these costs. Some, such as the first American diplomat in Seoul, Korea, later gifted their properties to the U.S. government.

The 1898 Spanish American War established the United States as an international political and economic power. Yet by 1910, the State Department owned properties in only four capitals—Peking, Tokyo, Bangkok, and Constantinople.

The 1911 Lowden Act gave the U.S. government the authority to purchase land and construct buildings for diplomatic missions overseas. In the 1920s, the Rogers Act created a Foreign Service with combined diplomatic and consular services, entry through competitive exams, and merit-based promotion. The U.S. government also took responsibility for acquiring office space and housing, reducing the need for private wealth as a prerequisite to a diplomatic career. However, many posts remained

in poor condition. In response to continued complaints by American businessmen and others inconvenienced and embarrassed by the dilapidated state of U.S. posts overseas, the 1926 Porter Act created the Foreign Service Building Commission. Consisting of the Secretary of State, other Cabinet members, and members of Congress, the Commission was authorized to oversee the purchase and construction of diplomatic facilities, with a significantly increased budget. A small State Department office gathered data, prepared budgets, and developed plans, but the Supervising Architect of the U.S. Treasury oversaw the preparation of working drawings and specifications, often employing private architects.

The State Department used the Porter Act's authority to acquire property, mostly in South America and the Far East, where hot, tropical climates made life more difficult for diplomats. New facilities were usually designed to mimic the architecture of colonial America, which was rooted in classical styles or the Beaux Arts. The White House and presidential residences such as Mount Vernon were also models for U.S. embassies. Buildings available for purchase or lease were generally large homes adapted for official use. In contrast, the new Embassy in Paris, completed in the early 1930s, was an example of a new, purpose-built building. This large office building on the Place de la Concorde included spaces specifically designed for consular and ceremonial functions. During the Great Depression, building designs focused on functionality rather than elaborate decoration. Where possible, diplomatic and consular offices were combined in one building for greater efficiency.

In 1941, the State Department took responsibility for the design of diplomatic missions from the Supervising Architect of the Treasury. The Foreign Service Building Commission ceded many of its responsibilities to what would later be named the Division of Foreign Buildings Operations (FBO) before World War II halted construction. A 1945 law allowed the Secretary of State to sell diplomatic facilities and use the proceeds to acquire, construct, and furnish other government-owned properties. Previously, the Department could acquire and construct facilities, but could not dispose of unneeded real estate.

After World War II, the Department opened new embassies as part of a global effort to counter the Soviet Union's influence in the emerging Cold War, including in newly decolonized nations in Asia and Africa. Embassies grew larger to accommodate overseas staff from other U.S. government agencies, and developments in communications required larger, more complex plans. The new U.S. Information Agency needed libraries, auditoriums, and exhibition halls. Congress authorized relatively large sums for property acquisitions in 1946 and in 1952, funded primarily by the disposal of surplus war property and payments from foreign governments for wartime and postwar economic assistance programs such as Lend-Lease and the Marshall Plan. Again, the program targeted "hardship" posts with the worst climates and fewest amenities.

In addition to consolidated, secure office space, FBO acquired representational housing for ambassadors and other senior officers, and safe, inexpensive, and unobtrusive housing for U.S. personnel. An early emphasis on purchasing existing buildings shifted to new construction in the 1950s, with purpose-built facilities designed for increasingly complex activities. FBO employed as much local labor and material as possible, but relied on U.S. architects. Most of the new facilities were in the modern, highly functional International Style, and featured extensive use of glass, and facades with limited ornamentation.

Some Members of Congress and professional architects felt that the International Style failed to adequately reflect the vitality and creativity of contemporary American design. Amendments in 1952 to the Foreign Service Buildings Act called for diplomatic facilities "designed to be as distinctively American as possible without clashing with the surrounding buildings." As noted in historian Jane Loeffler's book *The Architecture of Diplomacy*, FBO's first architectural policy in 1953 stated that buildings should be dignified and economical to build, operate, and maintain. Facilities were to be based on a written program, developed by FBO. They should be practical and unpretentious rather than conspicuous. They should fit in with their surroundings, and be admired by the host country.

In 1954, after a Congressional investigation of FBO's administration, architectural style, and site selection, the Secretary of State created a three-person Architectural Advisory Committee (later renamed the Architectural Advisory Panel). Under the new system, architects submitted their portfolios and the committee recommended to FBO the firm that they thought was best qualified for a given project. The Committee reviewed the architect's work as the design developed, and helped them to resolve any problems. FBO's in-house design team reviewed and approved finished drawings and had an American supervisor continually on site during construction. FBO also designed interiors, provided furniture, and handled landscaping and ongoing repairs and maintenance.

Leading modern architects designed many of these embassies, which were seen as representative of American progress, power, and freedom. They were often centrally located on prominent sites. After a construction boom between 1954 and 1960, growth slowed in response to world events and reduced Congressional funding; the Vietnam War led to a construction freeze.

The second half of the 20th century brought an increased focus on security. Concerned about electronic and conventional espionage in the early 1950s, Congress expressed a preference for owned facilities, allowing greater control and specialized construction. Mobs protesting U.S. involvement in Vietnam attacked several embassies, raising new security concerns. In 1965, a bombing of the Embassy in Saigon killed three employees. Subsequent embassy designs emphasized perimeter defenses and secure areas, and incorporated newly designed blast-resistant materials. The 1979 hostage crisis at the Embassy in Tehran, Iran, and the storming of the U.S. Embassy in Islamabad, Pakistan, increased security measures further.

3. HISTORY

A 1983 terrorist attack on the U.S. Embassy in Beirut, Lebanon, killed 63 employees. This led to a reorganization of FBO and, in 1986, the creation of a separate Bureau of Diplomatic Security. As directed by the Inman Commission, new security standards were enacted and codified, including setback and blast-resistance requirements. The Commission charged FBO with replacing embassies and consulates that failed to comply with new physical, technical and construction security standards. To meet this global challenge, FBO reorganized and significantly expanded its staff and capabilities. The Department hired a private sector support contractor to assist with the reorganization and execution of the program. The "Inman buildings" of the 1980s and 1990s incorporated new and evolving security standards, which added to the complexity and cost of embassies. During this period, FBO continued to hire leading U.S. architects for the designs. The Department completed less than a quarter of the planned projects due to the difficulty of finding the large sites the program required and a lack of funding.

The early 1990s brought significant geo-political changes as Eastern Europe broke free from the Iron Curtain and the Soviet Union dissolved into fifteen separate republics. The State Department moved quickly to establish diplomatic relations with the new republics, opening embassies there in a matter of months.

Following the tragic bombings in 1998 of the U.S. Embassies in Nairobi, Kenya, and Dar es Salaam, Tanzania, Secretary of State Madeline Albright formed the Overseas Presence Advisory Panel to study the U.S. profile abroad and the condition of the Department's facilities. The Panel noted unsafe, overcrowded, deteriorating, and shockingly shabby conditions at a number of U.S. embassies and consulates and found that more than 85 percent of the diplomatic facilities abroad were vulnerable to future attacks. Its final report issued both broad and specific recommendations for the future of the Department's building program and led to Congress's 1999 enactment of the Secure Embassy Construction and Counterterrorism Act (SECCA). The Act codified security requirements such as a 100-foot setback between the building and the property boundary and also required the Department to maintain a list of diplomatic facilities to be scheduled for replacement based on their vulnerability to attack.

The Department of State elevated the Office of Foreign Buildings Operations to the Bureau of Overseas Buildings Operations (OBO) in 2001. OBO was tasked with replacing more than 180 aging embassies that did not comply with new construction and physical security standards, an undertaking without precedent in Department history. To achieve that goal, the Department worked closely with the Office of Management and Budget, as well as the U.S. Congress, to ensure that a reliable funding source was put in place. The Capital Security Construction Program is funded through cost-sharing, in which U.S. government agencies contribute funding based on their proportional presence and type of space overseas.

To cope with the volume of space that had to be provided, OBO developed a prototypical embassy compound known as the Standard Embassy Design (SED). It was intended to be constructed in any country and site-adapted with modest alterations to fit a post's requirements. The SED incorporated physical and technical security, functional simplicity, spatial flexibility, and economic construction. As part of the Excellence initiative, OBO has codified the successful elements of the SED into its Design Standards.

Much of the Department's real estate portfolio still consists of acquired buildings. Over the years, funding for maintenance, repair, and rehabilitation did not keep pace with the aging of the U.S. government's overseas portfolio and the technical maintenance requirements of new construction. A number of existing facilities are not considered vulnerable from a security standpoint, and do not merit replacement in the near future, but nonetheless require significant investments to upgrade aging infrastructure and security, and/or work to mitigate natural hazards. The Maintenance Cost-Sharing (MCS) program, begun in 2012 and modeled on the program for new construction, allows OBO to conduct much-needed major rehabilitation projects on facilities not scheduled for replacement, thereby preserving legacy properties, and addressing a backlog of maintenance needs. MCS funds major rehabilitations and routine maintenance at functional facilities occupied by multiple U.S. government agencies.

Looking to the next generation of embassies and consulates, and building on the lessons of the past, OBO authored the Guiding Principles of Design Excellence in Diplomatic Facilities in April 2010 (see Chapter 2). This document was prepared with support and ideas from stakeholders within the Department, the design community, the American Institute of Architects, and key Congressional interlocutors. These Guiding Principles are the conceptual foundation of a new initiative to improve the quality, safety, and performance of U.S. diplomatic and consular facilities, while still moving people into safer facilities in a timely manner. They articulate the fundamental design goals of OBO's projects, including the integration of purpose, function, flexibility, safety, security, sustainability, art, and maintainability. The Guide to Excellence in Diplomatic Facilities is based on these Principles. A full range of tools are applied throughout the design and construction process to ensure high quality, fully-integrated results. OBO's resources, methods, and processes promote effective integration, communication, and decision-making during project development and construction and to support the maintenance and operations of completed facilities. This new chapter in the State Department's history will result in innovative, new American landmarks around the globe.

Resources

A short history of the Department of State, from our Office of the Historian:

<http://history.state.gov/departmenthistory/short-history>

The Architecture of Diplomacy, by Jane C. Loeffler. An Adst-Dacor Diplomats and Diplomacy Book from Princeton Architectural Press, 2011.

A History of the Buildings of the Department of State:
<http://history.state.gov/departmenthistory/buildings>

CHAPTER 4

PORTFOLIO

OVERVIEW

4. PORTFOLIO

PORTFOLIO

Diplomacy, like architecture, law, or medicine, has its own lexicon. The State Department uses the term “post” to refer to any Foreign Service establishment maintained by the United States abroad. The United States maintains diplomatic relations with 190 countries. A mission to a foreign country includes the embassy and all consulates and other diplomatic posts in that country. There are also missions to international organizations headquartered around the world. The principal officer in charge of each diplomatic mission is usually, but not always, an ambassador, appointed by the President and confirmed by the Senate. Referred to as the “chief of mission,” he or she directs, coordinates, and supervises all U.S. government employees in that country, with only a few exceptions.

OBO’s Director serves as the single real property manager for diplomatic and consular properties overseas and manages thousands of owned and leased properties worldwide, serving functional or residential purposes. OBO establishes, implements, and oversees all policies and procedures governing the real property program. This responsibility is delegated through the Chief of Mission to the senior administrative officer (Management Counselor/ Officer), who is the designated single real property manager at each post.

Our buildings range from historic structures that have been adapted for diplomatic use to purpose-built modern structures. They include leased offices and apartments in urban high-rises, and large, suburban diplomatic compounds. They are located in almost every kind of climate, and have been built to a range of building codes. In some cases they have been constructed in accordance with, or in the absence of, local building codes and require additional work to ensure their safe use.

The Diplomatic Mission

An embassy is the headquarters of the U.S. ambassador and his or her staff in the capital city of a foreign country, often referred to as the host nation/country. The United States has only one embassy and one bilateral ambassador to any foreign country. (There are a limited number of missions to international organizations in various cities throughout the world.) A deputy chief of mission, the second ranking officer at post, often functions as the chief operating officer or chief of staff to the ambassador.

The embassy staff includes Foreign Service Officers (who generally rotate to serve at a different post every two to three years), Foreign Service Specialists, and representatives of other U.S. agencies, such as the U.S. Agency for International Development (USAID) and the Departments of Defense and Agriculture. (OBO sometimes refers to these as “tenant agencies”.) The staff of all of these agencies reports to the ambassador. Citizens of the host country and U.S. citizens who are long-time residents of the host country, referred to as “locally employed staff,” also fill essential jobs at embassies.

In some countries, the United States may have several consulates or consulates general. These facilities function similarly to embassies, but are typically located in the main cities of provinces or states. Each is led by a consul general. The size and structure of diplomatic missions vary, but generally include political offices (called sections) that analyze host country political events and negotiate and communicate with the host government, economic sections that focus on trade and related issues, and consular sections that issue visas and assist American citizens overseas. Other offices include press officers and cultural affairs officers, and management sections that oversee embassy operations.

A regional security officer (RSO) is responsible for implementing and managing the Department’s security and law enforcement programs. An RSO is resident at a particular post and may have constituent posts within the region for which he or she is responsible. The RSO reports directly to the deputy chief of mission.

At some posts, the U.S. Agency for International Development (USAID or AID) and other entities are responsible for non-military foreign assistance, while defense attaché offices handle official military-to-military contact between the governments. Depending on the requirements of the mission, other offices, including those of tenant agencies, may include the U.S. Commercial Service, the Foreign Agricultural Service, the U.S. Citizenship and Immigration Services, as well as offices dealing with science, health, and military sales.

Embassies and consulates include areas that the Department refers to as “representational space.” These spaces are the setting for social events hosted by the mission, as well as concerts and other performances, art exhibitions, and other activities at which U.S. diplomats represent the United States to the host government and citizens. These elements of non-traditional diplomacy play an important role in maintaining and improving bilateral relations, furthering American business and commerce with the host nation, and improving the image of the United States overseas.

In order to allow each of these offices and agencies to fulfill its duties, the physical components of a diplomatic mission vary from post to post. Each facility is made up of a series of structures that accommodate the essential functions of the particular post. In some posts all elements are on a single compound; other posts may have facilities in different locations around the host city. Newly completed embassy and consular complexes are designed to work as an ensemble.

Existing facilities are typically an amalgamation of incremental improvements that may or may not be functionally or architecturally compatible. Any improvements should respect the original architecture, if it is significant, and harmonize the diverse elements of the complex to the extent possible. The Department of State’s inventory of buildings at each post comprises some or all of the following building types:

- **Chancery**
The principal offices of a foreign mission used for diplomatic or related purposes. This includes the site and any building on the site that is used for such purposes. Staff who work here include the diplomats responsible for political matters, as well as administrative and other personnel. The chancery or consulate building is the heart of a diplomatic facility. These buildings include office space, but also host a range of activities including consular services, information centers, and support services such as cafeterias, gyms, and medical units. They are the setting for a variety of public events that allow diplomats to represent the U.S. government to the host nation, diplomatic community, business community, and the public.
- **Annex**
If additional office space is needed beyond that available in the Chancery, offices are housed in annex facilities. These may be an additional building on the diplomatic compound, leased space in a commercial building, or a separate leased or owned off-compound structure.
- **Consulate**
The principal offices of a foreign mission used for consular or related purposes. This includes the site and any building on the site that is used for such purposes. If independent of an embassy, this may be a consulate general.
- **Chief of Mission Residence (CMR)**
The home provided to the ambassador (or the person holding the position of chief of mission) as their official residence is used for representational events to further the interests of the United States, and is also their living quarters. (A Principal Officer’s Residence houses the consul general and serves a similar representational function in a non-capital city.) Occasionally, security concerns may require that a new embassy or consulate complex include a residence for the chief of mission or consul general. In other cases, OBO may enter into a purchase agreement, lease, build-to-lease, or build-to-own arrangement with a private sector entity for this residence, generally within a reasonable distance of the embassy. Senior-level staff housing is also intended to serve a representational function.
- **Marine Security Guard Residences (MSGR)**
If a detachment of U.S. Marines is assigned to the post, the Department provides them with shared housing, including common recreational and fitness areas. (These are also referred to as Marine Security Guard Quarters, or MSGQs.) The MSGR can be located on or off an embassy compound, but is typically included in new construction.
- **Staff Housing**
These homes may be owned or leased by the U.S. government. In some cases they are located on the embassy compound for security reasons.

- **Campus Access Pavilions**

These facilities allow the post to control vehicular and pedestrian access to the compound, and to screen visitors. In new facilities there are typically three entrances: main, consular, and service. (Their official title is Compound Access Control, or CAC, facilities.)

- **Community Facilities**

Depending on the available local services, an embassy complex may include recreational facilities such as a pool, basketball court, and/or gymnasium for the staff and their families.

- **Service Buildings and Warehouses**

Depending upon the available local services, as well as the mission's security needs, an embassy compound may include a warehouse, facility management shops, utility buildings, water storage or treatment facilities, and other support facilities. These must meet the post's specific needs. For example, vehicle maintenance workshops should be able to accommodate the number, size, - and types of vehicles commonly found in the diplomatic fleet and the safe storage and disposal of automotive fluids.

CHAPTER 5

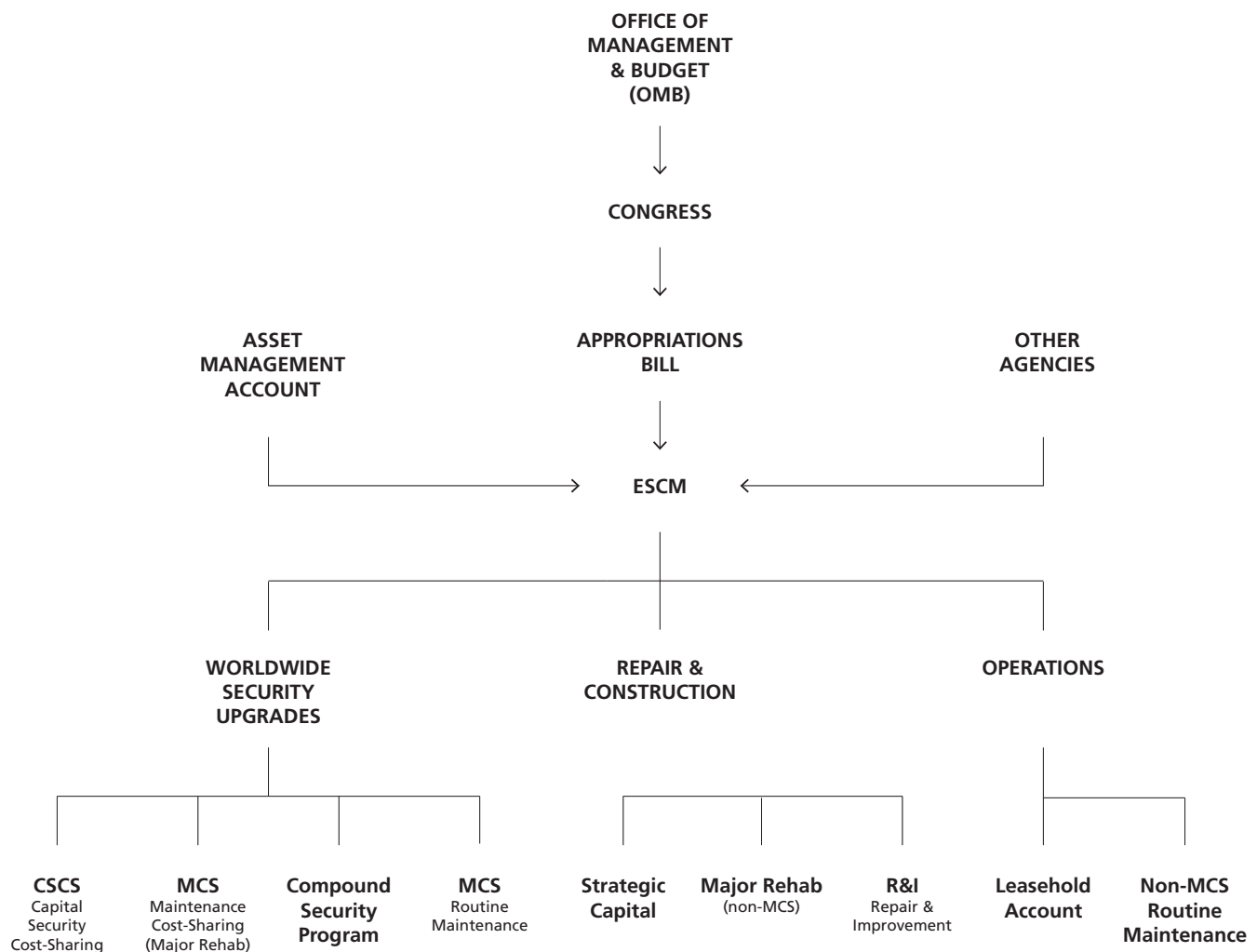
FUNDING

OVERVIEW

5. FUNDING

FUNDING

Congress authorizes and appropriates the funding for Federal projects. OBO projects are funded through the annual Embassy Security, Construction, and Maintenance (ESCM) appropriation. Each year, the Department of State, working with the Office of Management and Budget, submits a budget request to Congress. Once an appropriation bill is passed, OBO must submit to Congress a financial plan (referred to as the “finplan”), to detail how funds will be spent for every capital, major rehabilitation, or asset management-funded project. OBO must spend its funds in accordance with the finplan, and make every effort to ensure projects are completed within the approved scope, schedule, and budget.

FUNDING FOR OBO PROJECTS

New Construction Projects

New construction projects for functional use are funded under two accounts: Capital Security and Strategic Capital. Funding for Capital Security projects is provided through the Capital Security Cost-Sharing (CSCS) program, managed by OBO. Each U.S. government agency with overseas personnel under chief of mission authority is allocated a share of the cost to provide new diplomatic and consular facilities. OBO bills other agencies annually for their CSCS costs, with OBO funding the majority of the Department of State's share from its annual ESCM appropriation.

Strategic Capital projects are new facilities built for reasons in addition to security, such as the opening of a new post or the replacement of a facility that is undersized, otherwise inadequate, or damaged or destroyed by a natural or other disaster. These projects are funded by the ESCM appropriation (but not through CSCS). Given the focus on security, Strategic Capital projects are seldom funded.

In addition to appropriated funds and cost-sharing contributions, OBO, with Congressional notification, may fund construction projects from the Asset Management account—the proceeds from the sale of excess or underutilized real estate properties. OBO can use these funds to construct or purchase facilities around the world. The account generally funds the purchase of staff housing, thereby reducing future lease costs. Occasionally, such as in Berlin and London, it is used to fund a new embassy.

OBO's Leasehold Account funds all of the Department's functional and residential overseas leases from OBO's appropriation, and fit-out costs for newly leased offices.

Renovation Projects

Separate allotments fund the four primary types of renovation projects:

- **Major Rehabilitation Projects**

Work to renovate a facility or replace a major building system is funded from the major rehabilitation account. Major Rehabilitation projects for functional facilities occupied by multiple agencies are funded from the Maintenance Cost-Sharing (MCS) program, with

OBO funding the Department of State's share from its annual ESCM appropriation. (MCS funds are assessed and collected through the same process as the Capital Security Cost-Sharing program; the total funds are then proportionally divided between the two accounts.) Major Rehabilitation projects for functional facilities occupied only by the State Department, and for all residential facilities, are funded solely by OBO.

- **Compound Security Upgrades**

Recognizing the need to upgrade security at posts that are not slated for new facilities in the immediate future, to address changing security requirements, and to fund security improvements at soft targets, Congress has provided funding specifically for compound security projects that is separate from the Capital Security and Major Rehabilitation accounts. The Compound Security Program funds projects to upgrade the security of existing facilities from through physical security and technical security upgrades. In addition to full-scale compound security upgrades, the program also funds minor physical security upgrade projects, as well as unplanned emergency upgrades following terrorist or mob attacks against Department facilities.

- **Lease Fit-Outs**

The Leasehold account funds projects to modify and adapt commercially leased space. Each tenant agency must fund its own share of the lease fit-out—and must fund the entire project if it is the only occupant. OBO funds the State Department portion of each project.

- **Repair and Improvement**

The Repair and Improvement account funds repairs or improvement projects at functional and residential properties.

5. FUNDING

Routine Maintenance and Repair

Each post also receives a specified amount of funding for routine maintenance and repair, which is sent to post as a lump sum and disbursed by post as needed. The amount is based upon industry standards for maintenance costs per square meter, adjusted for local costs. This funding covers preventive maintenance of building systems; recurring activities such as painting, weather-stripping, termite control, minor repairs, and replacement of fixtures; and the acquisition of building supplies for recurring maintenance. Routine maintenance for functional facilities occupied by multiple agencies is funded from the Maintenance Cost-Sharing Program, with OBO funding the Department of State's share from its annual ESCM appropriation. OBO funds routine maintenance for functional facilities occupied only by the State Department, and for all residential facilities.

Operational Expenses

For posts with multiple government agencies present, these costs are shared based on each agency's presence at a given post through the International Cooperative Administrative Support Services (ICASS) program. The Department's regional bureaus fund the State portion of building operating expenses such as utilities, janitorial services, trash removal, etc.

Funding from Other Entities

Some projects include funding from outside of OBO, either from other Department of State bureaus or from other agencies, apart from the Capital Cost-Sharing and Maintenance Cost-Sharing programs. OBO works with the bureau or tenants to refine the project scope, and prepare a schedule and cost estimate. For these projects, each entity provides a Memorandum of Understanding (MOU) or other appropriate documentation to define the scope of work and provide funding to OBO. For projects executed on behalf of other agencies, an indirect charge is included to cover the overhead costs of OBO staff salaries, necessary travel, etc.

CHAPTER 6

ORGANIZATION AND PARTNERS

OVERVIEW

OBO'S ORGANIZATION AND PARTNERS

To fulfill our highly technical mission, OBO staff includes experts across a variety of disciplines. OBO encourages, and in some cases requires, staff to have professional certifications ranging from real estate appraisal to engineering, architecture, finance, and project management. OBO is committed to continued professional development for our staff through membership in relevant professional organizations, ongoing training, and industry best practices.

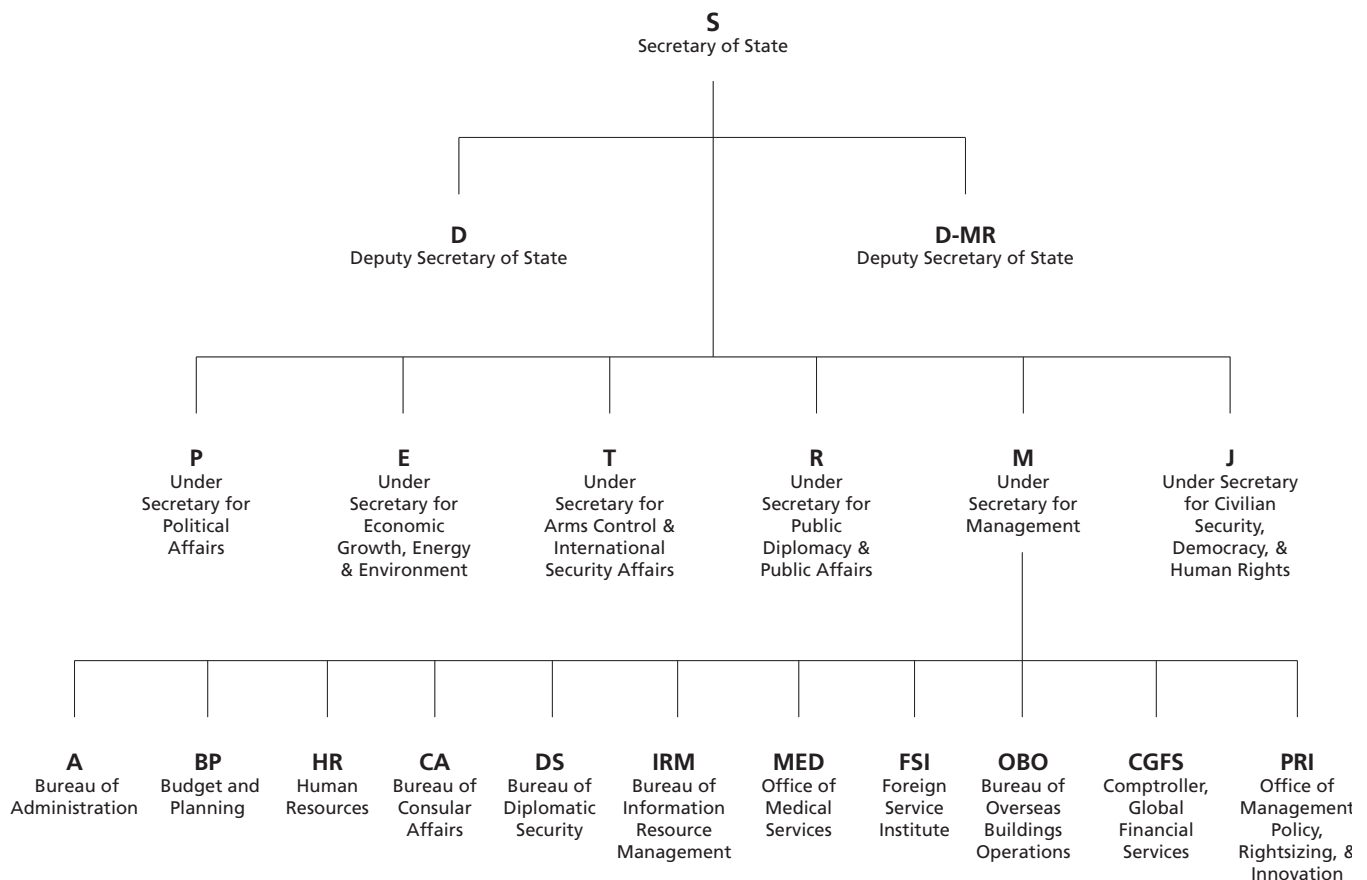
One of a number of functional bureaus within the Department of State, OBO is led by a Director whose rank is administratively equivalent to an Assistant Secretary. The Director reports to the Under Secretary for Management. The Under Secretary for Management reports to the Deputy Secretary of State for Management and Resources.

OBO'S ORGANIZATIONAL STRUCTURE

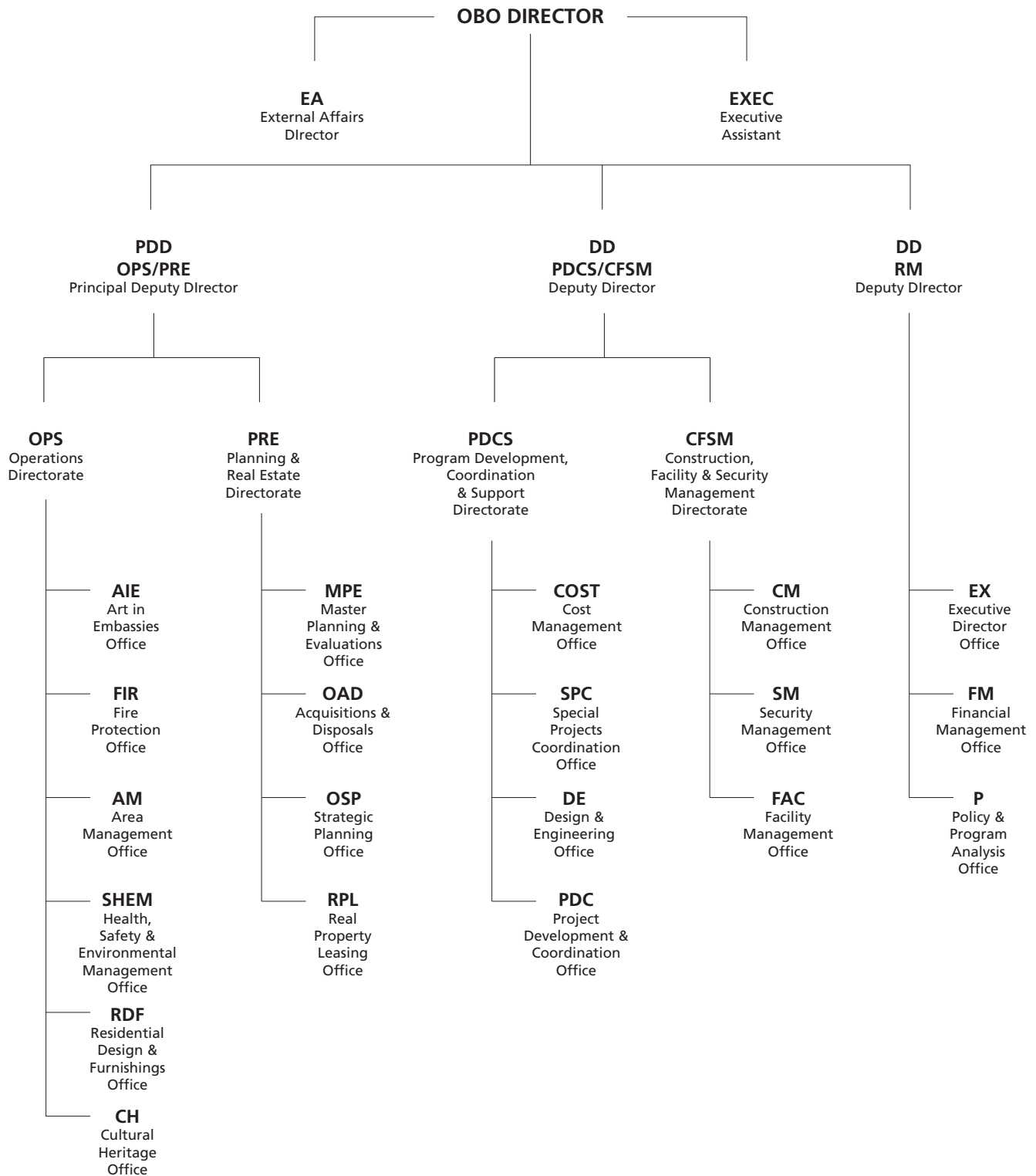
OBO is organized into five managing directorates:

- Operations (OPS)
- Planning and Real Estate (PRE)
- Program Development, Coordination and Support (PDCS)
- Construction, Facility and Security Management (CFSM)
- Resource Management (RM)

STATE ORGANIZATIONAL CHART



Only Bureaus and Offices directly relevant to OBO's operations are shown.
For a full organizational chart and more information, see the Department of State website (www.state.gov).

OBO ORGANIZATIONAL CHART

Operations (OPS)

The Directorate of Operations provides technical and management expertise to support day-to-day and long-term operations of embassies and consulates. Its six offices specialize in the following areas:

- **The Office of Area Management (AM)** provides customer service and support to overseas posts, serving as a link between OBO, posts, the regional bureaus, and other federal agencies as necessary. It maintains the Building Management Information System (BMIS), a web-based application that allows OBO users to view and manage project-related documents and information, and to prioritize projects in the worldwide Repair and Improvement (R&I) Program. The Office also handles the Post-Occupancy Evaluation program.
- **The Office of Residential Design and Furnishings (RDF)** oversees the interior design of more than 400 official representational residences for ambassadors, deputy chiefs of mission, consuls general, and principal officers. The Office also manages the procurement, provision, maintenance, and inventory of representational chinaware, crystal, and silverware used in Chief of Mission Residences.
- **The Office of Cultural Heritage (CH)** manages Department of State properties, and their assets, that are designated as historically, culturally, or architecturally significant to the host country and U.S. diplomatic relations. Its main mission is the preservation of American history and architecture. The office oversees the Secretary of State's Register of Culturally Significant Property—which currently lists 26 properties—and catalogs and maintains antiques, works of art, and other cultural heritage objects owned by the U.S. government and displayed or in use at posts.
- **The Office of Art in Embassies (AIE)** is responsible for the selection, commissioning, installation, and exhibition of original works of art by local and American artists. Permanent collections are displayed in newly constructed embassies, consulates, and annexes. Temporary collections are displayed in the representational areas of Chief of

Mission Residences worldwide, and primarily consist of works that are loaned for the duration of each ambassador's term. A new collection is curated and installed when a new ambassador arrives at post.

- **The Office of Fire Protection (FIR)** provides fire safety inspections and training, fire protection engineering, fire systems installation, automatic fire suppression and detection system maintenance, and fire investigation services for the Department of State's overseas facilities and for other foreign affairs agencies for which the Department is responsible for providing support and services.
- **The Office of Safety, Health and Environmental Management (SHEM)** works to prevent fatalities, mishaps, property damage, motor vehicle crashes, and environmental contamination in overseas operations of embassies and consulates. This includes assisting posts in complying with critical Occupational Safety and Health Administration (OSHA) and Environmental Protection Agency (EPA) regulations.

Planning and Real Estate (PRE)

The Directorate of Planning and Real Estate provides long-range strategic planning; global real estate strategies; real estate transaction negotiations, advice, and execution; and related international real estate services. Staff members achieve these goals through four offices:

- **The Office of Strategic Planning (OSP)** manages the overall strategic planning process, including the Capital Security Construction Program schedule, the Capital Security Cost-Sharing program, the Maintenance Cost-Sharing program, the Major Rehabilitation Program, the Federal Real Property Initiative, and Project Requirements management. It manages the Department's worldwide real property inventory database, and safeguards and manages property documents.
- **The Office of Master Planning and Evaluations (MPE)** prepares comprehensive master plans for specific posts, and assists site acquisition by developing site acquisition plans and by exploring redevelopment opportunities and other alternative solutions for delivering new embassy and consulate

sites. It also provides appraisal review, opinions of value, market studies, financial analyses, and negotiation support to help inform real estate decision-making and guide the reinvestment of proceeds from sales.

- **The Office of Real Property Leasing (RPL)** develops and manages policy for residential units worldwide, administers the Department's lease waiver program for commercial and residential properties, manages the Department's leasehold account and major lease transactions, and provides general international real estate guidance on leasing-related activities to U.S. diplomatic missions overseas.
- **The Office of Acquisitions and Disposals (OAD)** manages the Real Estate Purchase, Sales, and Redevelopment Programs, as well as the Site Acquisition (New Embassy/Consulate Complex) Program, and provides general international real estate transaction-related guidance to U.S. diplomatic missions overseas. It coordinates with the Bureau of Diplomatic Security to find properties that meet security and other criteria for new facilities.

Program Development, Coordination, and Support (PDCS)

The Program Development, Coordination, and Support Directorate is responsible for the design, coordination, and management of OBO's construction and renovation programs. The Managing Director for PDCS oversees four offices.

- **The Office of Design and Engineering (DE)** provides expertise in architecture; landscape architecture; space programming; space planning; interior design; graphic design; sustainability; civil structure, seismic, blast, geotechnical, electrical, and mechanical engineering; telecommunications; and security. Working with Planning and Real Estate, DE develops and updates the Space Requirements Programs. DE directs design coordination of OBO's building program, managing designs from planning through construction. DE monitors the performance of the architecture-engineering contractors hired to execute OBO's projects. The office serves as the building code official, confirms the technical adequacy of construction documents, and issues building

permits. The Energy and Sustainable Design Unit (ESD) provides multidisciplinary expertise for the sustainable site selection, planning, design, engineering, construction, and maintenance of OBO projects.

- **The Office of Project Development and Coordination (PDC)** provides project management and leadership for the Bureau's design and construction programs. PDC participates with Planning and Real Estate in strategic planning and the analysis leading up to site acquisition. It directs and coordinates the development of scope, schedule, and budget for major OBO projects. It supports the Office of Logistics Management (A/LM; description follows) in the acquisition of private-sector design and construction services, including the development of the solicitation and the preparation of supporting documentation, and coordinates all efforts in determining the contract award.
- **The Office of Special Projects Coordination (SPC)** directs, coordinates, and executes all aspects of special projects that have unique security requirements. It is responsible for the planning, funding, design, construction, commissioning, and security of these new capital construction projects worldwide.
- **The Office of Cost Management (COST)** identifies, estimates, and manages all costs associated with OBO projects during each stage of project development, from concept through construction completion. COST prepares Independent Government Estimates (IGEs) for contractual actions. It does a limited review or validation for smaller OBO projects, and prepares or approves current working estimates (CWEs) for all significant projects. The CWEs comprise all project costs, including those for the Site Maintenance and Development Plan, design, construction, construction supervision, security supervision, telephones, furniture, and fixtures. COST also manages the Congressionally mandated value engineering program, which evaluates all projects over \$1 million during the planning, design, and construction phases to ensure that they meet user requirements at the lowest life-cycle cost. Project costs are managed by recommending alternatives that improve function for users and value to the U.S. taxpayers.

**Construction, Facility,
and Security Management (CFSM)**

This directorate is in charge of all aspects of the construction, maintenance, and security of major projects. The work is conducted by three offices:

- **The Office of Construction Management (CM)** manages major construction, renovation, and security upgrade projects, with the aid of on-site personnel, and provides related services to ensure that these projects are completed on time, within scope and budget, with proper safety and security, and under contract terms.
- **The Office of Facility Management (FAC)** sends Facility Managers to some diplomatic and consular facilities, and provides technical assistance and support to all posts. Facility Managers oversee the day-to-day operational and maintenance needs of the mission. Their responsibilities include performing condition and maintenance inspections, developing and engineering preventative maintenance programs, and providing hands-on technical support. In addition, FAC manages technical programs, with some contractor support, including roof and various building systems repair/replacement activities, electrical generating and conditioning equipment, elevators, and hazardous materials abatement. FAC also coordinates maintenance and life-cycle criteria with the Office of Design and Engineering to ensure appropriate design standards, and works with the Office of Cost Management to complete life-cycle cost analysis on various projects. It coordinates with OBO's Office of Residential Design and Furnishings and the Office of Cultural Heritage.
- **The Office of Security Management (SM)** ensures that all appropriate physical, technical, and procedural security measures are incorporated into every OBO project design for U.S. diplomatic and consular facilities, and manages construction security programs that prevent physical and technical penetration, and safeguard against terrorist attacks and mob violence. The Office also conducts security upgrade projects and supports posts with ongoing maintenance and repairs. It coordinates with the Bureau of Diplomatic Security, which is responsible for certifying and accrediting projects (see below).

Resource Management (RM)

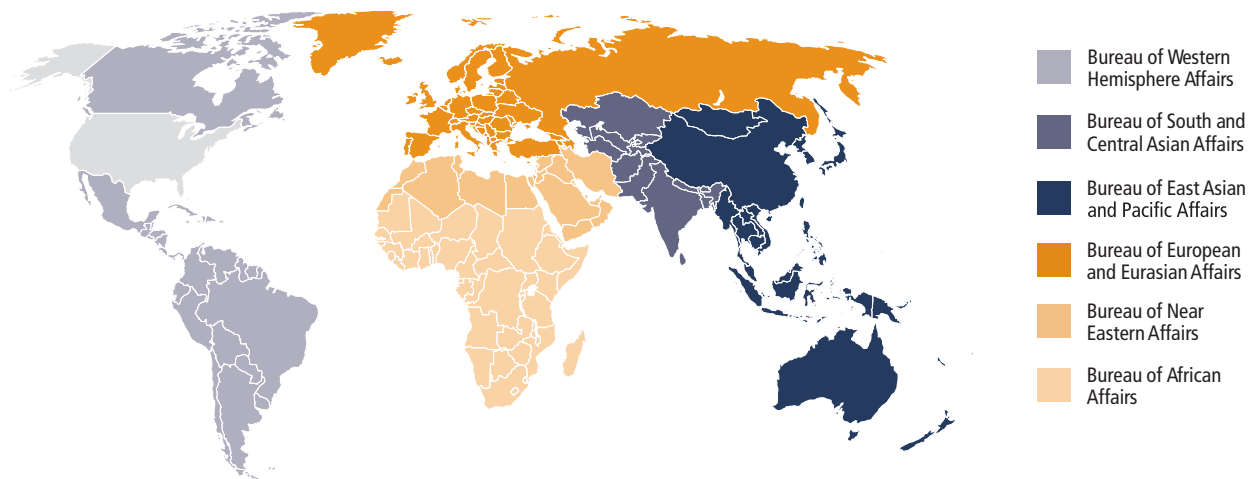
This Directorate supports OBO's financial, human resources, information technology, and policy functions. The work is conducted by three offices:

- **The Office of Financial Management (FM)** provides accounting, budgeting, and financial management services for OBO programs; prepares the annual budget for Embassy Security, Construction, and Maintenance (ESCM) appropriation submissions to the Department, the Office of Management and Budget (OMB), and the Congress; and prepares notifications and reprogramming required by Congress. The office also maintains budget and financial controls systems to ensure OBO's operations are consistent with government requirements and policies.
- **The Office of Policy and Program Analysis (P)** coordinates the development of OBO policies and procedures, revisions to the Foreign Affairs Manual, and memoranda of understanding in support of OBO's programs. It develops position, decision, and information papers. It liaises with the Department's Office of Inspector General (OIG) and the U.S. Government Accountability Office (GAO), and coordinates OBO responses to their audits and inspections. It formulates OBO's Bureau Strategic Performance Plans and serves as the OBO liaison to performance planning in the Department.
- **The Office of the Executive Director (EX)** provides executive management and administrative services to all offices and staff within OBO, including human resources management, information resource management, and general services. The office informs the various Bureau program offices of management and administrative policy requirements and maintains OBO's administrative systems.

External Affairs (EA)

OBO's Office of External Affairs serves as OBO's Congressional, press, public, and industry liaison. It coordinates with OBO offices on matters relating to Congress, state legislative bodies, industry, and other U.S. government agencies, media, press, and the general public, and communicates OBO's policies and programs to these stakeholders.

STATE DEPARTMENT REGIONAL BUREAUS



PRINCIPAL PARTNERS WITHIN THE DEPARTMENT OF STATE

Although OBO has primary responsibility for the State Department's overseas buildings, other organizations within the Department have substantial interests and involvement in OBO programs and projects. OBO's primary State Department partners include the posts and their regional bureaus, the Bureau of Diplomatic Security, and the Office of Logistics Management.

Embassies, Consulates, and Other Posts

OBO works primarily with Ambassadors and Consuls General, Deputy Chiefs of Mission, General Services Officers, Management Counselors/Management Officers, Regional Security Officers, and Facility Managers at each post. OBO delegates its responsibility as the Single Real Property Manager through each chief of mission to the designated senior management officer (the Management Counselor/Officer), who is the designated post Single Real Property Manager.

Regional Bureaus

Each post—and OBO project—falls within the responsibility of one of the Department's six regional bureaus. OBO works with Post Management Officers in Washington, and with other officials in these bureaus.

Bureau of Diplomatic Security (DS)

The mission of Diplomatic Security is to provide a safe and secure environment for the conduct of U.S. foreign policy. OBO works with Diplomatic Security several offices:

- **The Office of Physical Security Programs (PSP)** directs and assists in the development of standards, policies, and procedures for protecting personnel, facilities, and the national security information of the Department and foreign affairs agencies abroad. It also develops and implements policies and procedures to certify to Congress that new construction and major renovation projects have met appropriate standards. The office provides a risk analysis of Department facilities that drives OBO's prioritization of replacement embassies and consulates.
- **The Physical Security Division (PSD)** provides oversight (using the accreditation process) to ensure that new office building construction and major renovation projects have properly applied physical security and other standards in the selection, design, construction, and modification of buildings. They also perform technical security and physical security standards compliance inspections and prepare Congressional certifications with respect to the suitability of new embassies and consulates for classified operations. The Research and Development section certifies physical security equipment that meets specified performance criteria through in-house and independent testing.

- **The Office of Information Security's Industrial Security Division (IS/IND)** manages the Department's implementation of the National Industrial Security Program (NISP) and ensures the protection of U.S. government classified and sensitive but unclassified (SBU) information provided to private industry. This includes architect-engineer and construction contractors performing projects for OBO. The division assesses the overall operational needs of projects in support of the Diplomatic Security mission, and is also responsible for processing Visitor Access Requests and facility clearances for contractors.

Office of Logistics Management (A/LM)

Located in the Bureau of Administration, A/LM's Office of Acquisitions Management (AQM) is responsible for the solicitation and award of architect-engineer, Design/Build, and construction contracts. It helps ensure conformity with contract requirements and the completion of projects on time and within budget. Once offerors are under contract, AQM's Contracting Officers delegate their authority to OBO Project Managers during the design phase, and OBO Project Directors during the construction phase (see Chapter 7). Other OBO staff is delegated authority for incidental contract efforts as needed. A/LM's Office of Logistics Operations (OPS) oversees warehousing, transportation management, and related logistics processes for construction projects. A/LM's Office of Program Management and Policy (PMP) develops policy, guides professional development, and improves logistics systems used to deliver material and support to domestic and overseas State Department personnel.

A number of other State Department bureaus and offices are stakeholders in OBO projects. In addition to the bureaus described below, OBO also works with others—such as the Bureau of International Information Programs—when their overseas operations are integral to a project.

Overseas Security Policy Board (OSPB)

The OSPB is an interagency consultative body that assists the Secretary of State in carrying out statutory responsibilities to provide for the security of U.S. government operations at U.S. missions abroad. The OSPB considers, develops, coordinates, and promotes

security policies, standards, and agreements on overseas security operations, programs, and projects that affect all U.S. government agencies under the authority of a chief of mission. Chaired by the Assistant Secretary of the Bureau of Diplomatic Security, the OSPB generally meets six times a year.

Office of the Assistant Legal Adviser for Buildings and Acquisitions (L/BA)

L/BA provides legal advice and representation in the solicitation, award, and administration of Federal acquisition contracts; the acquisition and development of real property abroad; the negotiation and litigation of contract disputes; the defense of bid protests at the Government Accountability Office; the management of government property domestically and abroad; the drafting and interpretation of Federal acquisition laws, regulations and policies; the oversight and administration of employee associations at posts abroad; grant and cooperative agreement law, regulations, policies, and administration; and Conditions of Construction Agreements between the United States and other countries when necessary.

Bureau of Information Resource Management (IRM)

IRM provides OBO with the design criteria of classified and unclassified communications and information handling systems within embassy buildings and throughout the Department, and the management of these systems when complete. An IRM Liaison Office works with OBO on projects. IRM's Office of Information Assurance, in cooperation with the Bureau of Diplomatic Security, is responsible for maintaining the security of these systems, including the development of installation standards and guidelines. IRM is a key project team member whose input helps establish project budgets.

Office of Management Policy, Rightsizing, and Innovation (M/PRI)

In the rightsizing process, M/PRI conducts overseas staffing reviews of all missions on a rolling 5-year basis, as well as prior to planning any new construction projects abroad, in order to determine the appropriate human resources required to meet foreign policy goals. OBO uses only approved staffing projections to determine building sizes and cost estimates.

Bureau of Consular Affairs (CA)

CA adjudicates visa applications for host country citizens and third country nationals who want to visit the United States, assists and protects U.S. citizens overseas, facilitates adoptions, combats fraud, and issues and renews U.S. passports. In Washington, OBO works primarily with the Office of the Executive Director (CA/EX), which is responsible for providing a full range of management support for CA, and with the Office of the Comptroller (CA/C), which is responsible for the budget and financial plan for CA and the Border Security Program. OBO works with CA to establish requirements for new consular facilities, and where appropriate, on special projects to improve existing consular facilities and capacity.

Office of Medical Services (MED)

MED provides healthcare to U.S. government employees and their families who are assigned to embassies and consulates worldwide, and advises State Department management and posts about health issues throughout the world. OBO works with MED to establish requirements for medical facilities at new embassies and consulates. The extent of the facilities at each post depends upon the available local care and other factors.

The Office of Foreign Missions (OFM)

OFM works for the fair treatment of U.S. missions and personnel abroad. The office ensures that foreign missions and their members residing in the United States receive the same treatment that their respective governments provide in return to U.S. diplomats. Additionally, OFM provides some assistance to foreign missions in working with federal, state, and local government offices in the United States. OFM is also involved in seeking VAT tax rebates.

Office of Small and Disadvantaged Business Utilization (OSDBU)

This office ensures that all legislatively specified categories of small businesses in the State Department's prime contracts and subcontracts are effectively utilized to the maximum extent possible. The office champions U.S. small business interests in the Department's acquisition process, and provides training and counseling to small business firms about doing business with the Department of State. They assist OBO and other Department bureaus in identifying resources that result in increased opportunities for small businesses.

Foreign Service Institute (FSI)

FSI is the primary official training institution for officers and support personnel of the U.S. foreign affairs community. OBO works with FSI to provide various Washington-based courses and distance learning options for our staff and for posts. A variety of classes include an overview of OBO construction and renovation projects, project management, safety and occupational health, facility management, and specific topics such as asbestos remediation. OBO staff have access to a range of FSI's courses on broader topics such as leadership, management, and information technology. FSI also provides external training opportunities through other academic institutions to meet OBO's unique requirements to remain current with industry practices in specialized disciplines such as structural engineering.

EXTERNAL PARTNERS**Other Federal Agencies**

A large number of Federal agencies, such as the U.S. Agency for International Development (USAID) and the Departments of Defense and Agriculture send their staff abroad to work in our facilities and in host government facilities (see Chapter 4). OBO works closely with these agencies to ensure that their workspaces in our facilities meet their functional and security needs, and communicates with them regularly about our program. These agencies contribute funds for new embassies and consulates, and for the maintenance and renovation of existing facilities (see Chapter 5).

The Private Sector

OBO utilizes private sector architects, engineers, and construction contractors to design and execute its new facilities, and continually partners with the private sector on smaller projects (see Chapters 7, 14, and 16). OBO also partners with the private sector on research and development. Material advances and new technologies can result in the delivery of better diplomatic facilities, and to that end, OBO must invest in innovation. One way is to continue and expand partnerships with other U.S. government agencies, private entities, and academic institutions. OBO has worked collaboratively with various government and private sector entities to develop ways to improve our embassy perimeters, and to improve our interior design to increase workplace productivity and efficiency.

6. ORGANIZATION AND PARTNERS

OBO partners with the private sector to develop building elements such as forced entry/ballistic-resistant (FE/BR) windows and doors and computer software to help us manage our real estate, construction, and facility management programs.

Industry Advisory Group (IAG)

OBO's Industry Advisory Group serves as a bridge between the private sector and the government. The group comprises up to 35 private sector professionals representing the fields of real estate development, urbanism and planning, landscape architecture, architecture, engineering, historic preservation, interior design, graphic design, construction, facilities, and maintenance. OBO's Director selects the members based upon their professional or academic experience and/or contributions to the industry. Appointed to two-year terms, Industry Advisors participate in public meetings, project reviews, and ad hoc working groups. The members share their knowledge of concepts, methods, innovations, and best practices in their respective disciplines. Members participate in project- and program-specific reviews. OBO also draws from a pool of adjunct experts to supplement this expertise.

CHAPTER 7

STATE DEPARTMENT AND PRIVATE SECTOR TEAMS

OVERVIEW

STATE DEPARTMENT AND PRIVATE SECTOR TEAMS

Achieving excellence across our diplomatic and consular facilities requires the dedication of a broad range of stakeholders. Envisioned broadly, the project team includes OBO management and experts, other State Department bureaus, end users at the post, and the private sector architectural, engineering, and construction contractor teams. Each plays an important role in the conception, design, construction, use, and/or management of these highly technical, complex facilities. Early and active involvement by all parties is critical to a successful outcome, reduces the need for costly changes as the project progresses, and ensures smooth operations of the finished facility.

State Department Project Team

As the owner's representative and the client, OBO helps select the appropriate architect-engineer (A-E) and construction contractors; sets the budget, program, and priorities; serves as a resource throughout the development of the project; reviews submitted work for compliance with our standards and requirements; and ultimately approves or rejects the work performed. OBO is the lead throughout the project, and partners with other State Department bureaus—most importantly, the Bureau of Diplomatic Security.

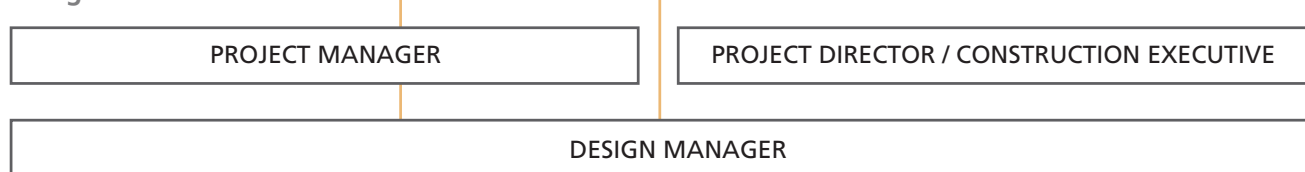
The larger State Department team also includes members from the post and its respective regional bureau, information technology and communications specialists from Information Resource Management (IRM), contracting officers from the Office of Acquisitions Management, and subject matter experts from other Department bureaus (see Chapter 6). Tenant agencies provide and confirm information about their specific requirements at each post.

The OBO core project team manages and directs the private sector A-E team selected to design the project, and the Design/Build or construction contractor selected to execute it. An extensive Washington-based team of OBO subject matter experts is joined during construction by a smaller OBO team on the site (see Chapter 16).

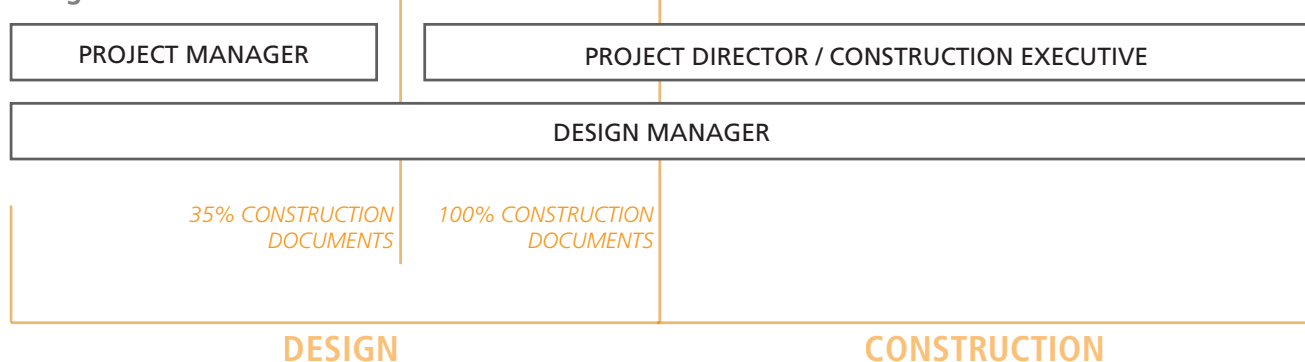
The core project team of the Project Manager, Design Manager, Project Director, and Construction Executive is responsible for OBO's daily management of a project; they provide leadership throughout design and construction to ensure seamless continuity and quality. The establishment, balance, and execution of scope, schedule, and budget cannot take place without their engagement. The core project team is charged with ensuring the quality of the design and that it is executed as approved and contracted. The project is led at each stage by the person serving as the Contracting Officer's

PROJECT LEADERSHIP

Design / Bid / Build



Design / Build



STATE DEPARTMENT PROJECT TEAMS**WASHINGTON-BASED TEAM** *(OFFICES IN PARENTHESES)*

- Project Manager (PDC)
- Design Manager (Architect) (DE)
 - Landscape Architect (AD)
 - Electrical Engineer (EE)
 - Mechanical Engineer (ME)
 - Civil Engineer (CSE)
 - Geotechnical Engineer (CSE)
 - Structural Engineer (CSE)
 - Telecommunications Engineer (DE)
 - Blast Engineer (DE or SM)
 - Space Programmer (DE)
 - Interior Designer (ID)
 - Sustainability Expert (ESD)
- Security Coordinator (SM)
 - Physical Security Engineer (SM)
 - Technical Security Specialist (SM)
- Construction Executive (CM)
- Facility Manager (FAC)
- Fire Protection Engineer (FIR)
- Safety, Health and Environmental Manager (SHEM)
- Cost Manager (COST)
- Requirements Manager (OSP)
- Master Planner (MPE)
- Area Manager (AM)
- Budget Analyst (RM)
- Art Curator (ART)
- Quality Manager (CM), during construction
- Historic Preservationist (CH) (if needed)
- Operations & Maintenance Transition Coordinator (FAC)

ON-SITE TEAM

- Project Director (CM)
 - Construction Manager, who serves as the Project Director's deputy
 - Civil/structural, mechanical, and electrical engineers
 - Architect
 - Safety Engineer
 - Project Controls Engineer
 - Independent Commissioning Agent (during last 6-8 months of construction)
 - Scheduler
 - Contract Specialist
 - Telecommunications Engineer
 - Site Security Manager
 - Cleared American Guards (CAGs)
 - Construction Surveillance Technicians (CSTs)
 - Security Investigator
 - Administrative personnel
 - Other staff as needed
- Post Facility Manager

Representative (COR, described below), generally the Project Manager through design and the Project Director through construction.

From the project's inception to the award of a Design/Build or construction contract, the Project Manager is responsible for the overall management of the project, and has principal authority for ensuring that its scope, schedule, and budget are executed as approved by the OBO Director. With the Design Manager, the Project Manager is responsible for ensuring that the project is

executed to OBO's quality standards. After construction contract award, the Project Manager supports the core project team, particularly on scope, schedule, and budget.

The Design Manager is responsible for the development and quality of the design throughout the life of the project, from inception until occupancy. He or she is authorized to manage the development of the design and its realization during construction. He or she is responsible for the integrity and accuracy of all aspects of the project design, ensuring that it meets all of OBO's

standards and program goals. The Design Manager leads the OBO project team of subject matter experts to analyze, coordinate, and resolve project design issues of all kinds.

The Washington-based Construction Executive provides input on construction phasing, general conditions, constructability issues, schedule, total field costs, and Request for Proposal (RFP) development during early project development and design. During construction, the Construction Executive supports the Project Director and is responsible for contract execution within the established scope, schedule, and budget. He or she is the primary point of contact for all Washington-based matters associated with executing the requirements of the contract and program. The Construction Executive works to ensure timely decisions on critical issues, coordinating with other members of the core project team.

The on-site Project Director is the COR during construction up to a completed project's handover to the post. He or she has principal authority for ensuring that the project's scope, schedule, and budget are executed as approved by the OBO Director, and coordinates with the core project team in Washington as changes to the scope, schedule, or budget are anticipated or become known. He or she is OBO's representative on the site, leading the on-site team. The Project Director is responsible for the daily management of the project and monitors construction to ensure that every aspect is constructed in accordance with the approved and contracted design, scope, and standards of quality. He or she also ensures that all construction is carried out in accordance with the construction security and safety plans (see Chapters 16 and 17).

The Department's subject matter experts are familiar with industry standards and the Department's specific requirements within their discipline. Their expertise is a resource to the private sector A-E and construction/Design-Build teams developing each project. The subject matter experts review the design and provide critical direction to ensure that all of the Department's standards and requirements are met (see Chapter 14). Under the direction of the Design Manager, the team uses an interdisciplinary, collaborative approach. For example, OBO landscape architects work with the Department's security experts to analyze the perimeter and its design

concepts. Facility management specialists advise on the maintainability of various design and engineering elements. During construction, the experts review submittals, respond to requests for information and change orders, according to their expertise, and inspect various building elements at the site (see Chapter 16).

Extensive major rehabilitations have similar teams; for projects with less scope, OBO forms teams of individuals whose expertise aligns with the project's specific needs.

Private Sector Teams

The Department hires leading American architects and engineers based on the quality of their design portfolio, past performance, and the expertise of their technical teams (see Chapter 14). Private sector teams typically align with and include the same disciplines as the OBO team, with subcontractors such as blast consultants, structural engineers, and sustainability experts. The Department partners with experienced construction contractors with verifiable records of success delivering complicated overseas projects on time and within budget (see Chapter 16). Their labor force includes specialists as needed.

In order to attract accomplished architects, engineers, and construction contractors and to retain companies with outstanding performance records, OBO is:

- Proactively communicating to the design, engineering, and construction community that design, Design/Build, and construction awards will reflect the Department's emphasis on quality;
- Continuing our "OBO 101" classes to introduce new companies to working with the Bureau, and our Capability Reviews, which allow interested firms to share their past performance with OBO;
- Supporting the Office of Acquisitions Management's New Contractor Day;
- Posting links to contracting opportunities on our website (<http://www.state.gov/obo/>) and notifying design and construction community list-serves, websites, and media outlets of the announcements; and

- Facilitating an environment that provides the best designers and contractors an opportunity to produce their most successful and enduring projects.

The Department's solicitation of private sector contractors must comply with Federal procurement laws and regulations governing open and fair competition. The process and evaluation criteria are intended to result in the selection of design and construction contractors who will deliver high-quality diplomatic and consular facilities for the American taxpayer.

The Bureau of Administration, Office of Acquisitions Management (A/LM/AQM) manages the A-E and construction contractor selection process on behalf of OBO, providing professional contract management services including acquisition planning, contract negotiations, award, and contract administration. A Contracting Officer is authorized to enter the U.S. government into contractual agreements and to approve payment to private sector contractors for services rendered, in compliance with Federal rules and regulations. They are the first and only point of contact for industry throughout the selection process. A Contracting Officer's Representative (COR) administers the contract after award.

All contracting opportunities are published on the Federal Business Opportunities website (www.fbo.gov, referred to as FedBizOpps) in accordance with U.S. government policy, which requires the publication of contract actions. Each solicitation outlines each stage in the selection process, the submission requirements, and the criteria used to evaluate submissions. A statement of work or Request for Proposals (RFP) provides information on the project's location and the magnitude of the work, an overview of salient design features, and a brief description of the process to be used in executing the design and construction. For Design/Build contracts, the RFP may include design development or "bridging" drawings; for Design/Bid/Build contracts, the construction drawings are part of the RFP (see Chapter 14).

Teamwork and Communication

A holistic and multidisciplinary approach to project development and execution will result in high-performance facilities that take into account the needs of a wide range of stakeholders. This approach is key to ensuring that everything from maintenance and operability to the seamless integration of art is addressed in a timely and cost-effective manner. A project's success relies on the OBO core team's ability to direct the many phases of the process and to create a collaborative working relationship among all team members. Strong communication and effective coordination are essential. The Design Manager, Project Manager, Project Director, and Construction Executive must have a good working relationship throughout the project.

Communication among all parties involved in a facility's planning, design, construction, operations, and maintenance strengthens the coordination of the design, reduces conflicts between building systems, minimizes cost overruns, and ensures that all stakeholders' needs are addressed. It is also essential to the smooth turnover of a completed facility to the Facility Manager. The core team must establish and maintain transparency through clear, regular, and effective communication with team members and stakeholders, in which all decisions are documented. All project parameters, assumptions, risks, constraints, and mitigation strategies must be clearly articulated and disseminated. Relationships between OBO and its colleagues in the Bureau of Diplomatic Security, the regional bureaus, and tenant agencies, as well as with its private sector partners, must be clear and open.

The core team must make every effort to resolve any conflicts among team members and with stakeholders, bringing significant decisions and those that cannot be resolved at the team level to OBO's management and senior management.

PROJECT DEVELOPMENT & EXECUTION





CHAPTER 8

NEW CONSTRUCTION PROGRAM

PROJECT DEVELOPMENT &
EXECUTION

NEW CONSTRUCTION PROGRAM

This chapter briefly describes how OBO evaluates and prioritizes new embassy and consulate candidate projects, and how the new facilities are developed, designed, and constructed. Subsequent chapters describe the processes in more detail.

An extensive project team from the State Department directs the private sector firms hired to design and construct the facilities (see Chapter 7). The core team of the Design Manager, Project Manager, Project Director, and Construction Executive are responsible for OBO's daily management of the project. The full team is a resource throughout the development of the project, reviews submitted work for compliance with our standards, and ultimately approves or rejects the work performed.

New embassy or consulate complexes (also referred to as New Embassy/Consulate Compounds, or an NEC or NCC) replace existing facilities, and allow the Department to consolidate or co-locate everyone under chief of mission authority on one property (see Chapter 4). These complicated projects typically take several years to execute. Most new construction projects are Capital Security projects, which are driven by a post's physical and technical security vulnerabilities and must meet the requirements of the Secure Embassy Construction and Counterterrorism Act (SECCA). A few are Strategic Capital projects built for the opening of a new post or to replace a facility that is undersized, otherwise inadequate, or damaged or destroyed by a natural or other disaster. (These projects must also meet SECCA requirements.)

Prioritization

SECCA mandates that the Department replace facilities at posts with the greatest physical and technical security vulnerabilities. The Bureau of Diplomatic Security annually provides risk rankings for overseas office buildings—embassies, consulates, and off-compound office annexes—which OBO uses to create a “Top 80 list” of posts that are candidates for replacement facilities (see Chapter 10). This is the first step to initiate a new embassy or consulate construction project. Once the Top 80 list is complete, OBO then develops the six-year Capital Security Construction Program Schedule of construction awards that match the projected funding for each fiscal year. The plan is intentionally flexible and includes backup

projects. The timing of each project is typically referred to by the fiscal year in which the construction award is anticipated—for example, as an “FY18” project.

OBO selects the most appropriate delivery method for each project—either Design/Bid/Build or Design/Build (see Chapter 10). Under Design/Bid/Build, OBO contracts separately for design and construction services. For Design/Build projects, OBO typically contracts with an architect-engineer (A-E) team for preliminary design definition services, and uses these bridging documents to contract with a single entity that provides final design and construction services. OBO's Director approves both the schedule and the delivery method for each project.

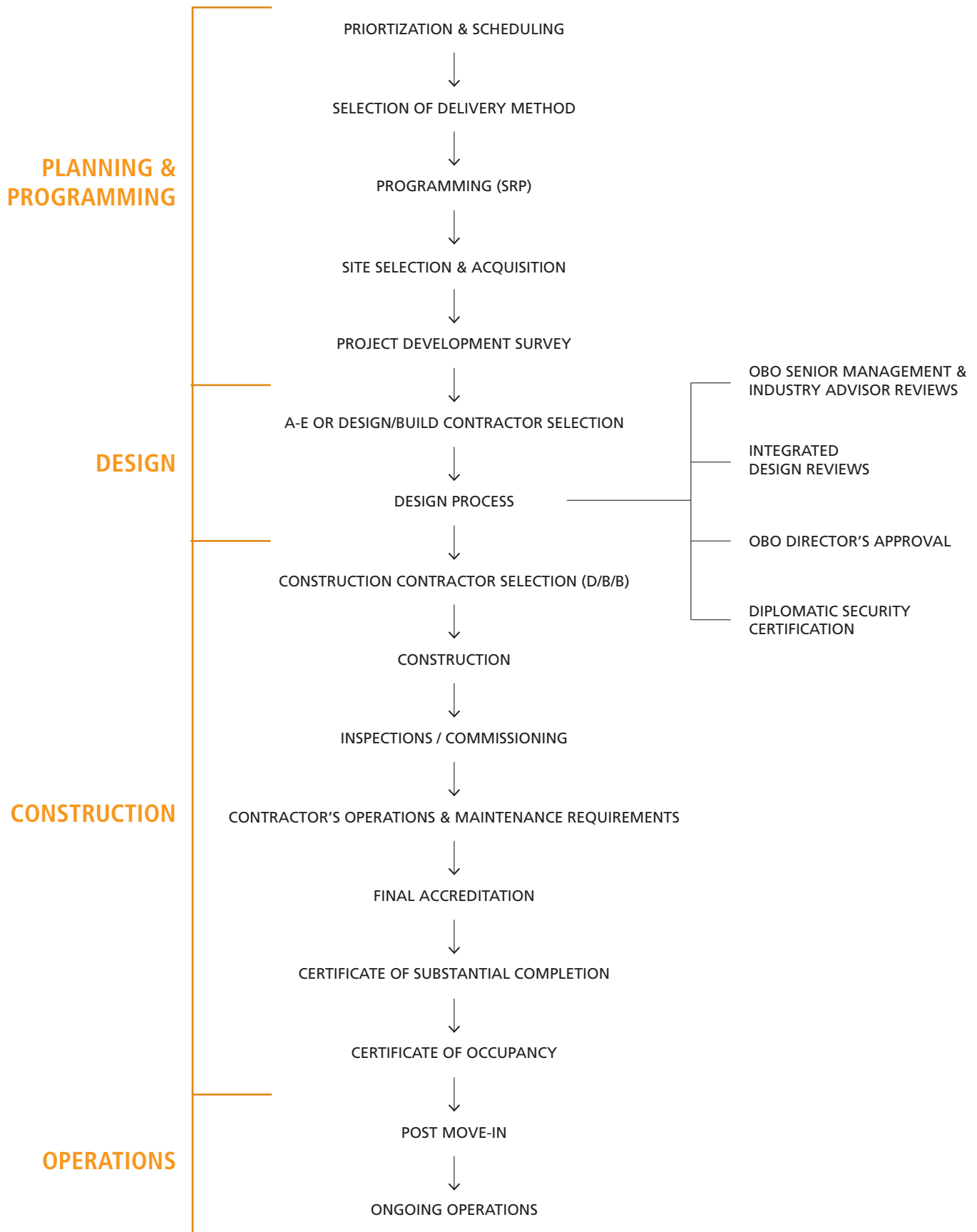
OBO also identifies posts that may be candidates for alternative solutions to significantly improve security, life safety, and overall functionality for less cost than a new facility (see Chapter 10). State Department experts thoroughly analyze these properties, and OBO then develops a comprehensive master plan for redeveloping the existing complex if appropriate.

Site Selection

One of the first determinations in a new embassy or consulate project is the site (see Chapter 11). If the existing site cannot be redeveloped, OBO aims to acquire a suitable site approximately 3 years prior to the scheduled award of a construction contract. Using early programming information and research on the local real estate market, OBO develops a search strategy, a range of anticipated site sizes, and an analysis of possible locations. Wherever possible, these are urban areas with strong links to the host government and community.

As the search narrows, a multidisciplinary site evaluation team from OBO and the Bureau of Diplomatic Security visits to evaluate short-listed sites with representatives from the post. The team uses established criteria on what constitutes a good site based on security, location, development, environmental issues, and other considerations. With the Director's approval, OBO negotiates for the U.S. government's top preferred site. The site is placed under contract while OBO conducts technical and administrative due diligence and notifies Congress of the proposed purchase. Once the property has been acquired, the U.S. government physically secures and maintains the site until construction can begin.

NEW CONSTRUCTION - TYPICAL PROCESS



Early Project Development

Concurrent with the site evaluation and selection process, OBO conducts or commissions a number of studies that document the project's baseline conditions and establish the direction in which it will be developed (see Chapter 12). OBO works with post and an A-E team to complete a number of due diligence studies for the site and a Project Development Survey (PDS)—a detailed report on a wide variety of issues impacting site development and building design options, including zoning and permit requirements and local conditions and resources. A Site Maintenance and Development Plan (SMDP) addresses issues and costs for early site work, maintenance, and security required after site acquisition and until a contractor begins work.

Programming translates the needs of a mission into clear requirements that guide the acquisition of a site and assist the A-E team under contract to plan and develop the design. OBO's Space Requirements Program (SRP) confirms the space requirements and functional needs of a project (see Chapter 12). An early version (SRP-0) informs the site search.

OBO begins the SRP process with the latest Rightsizing Review by the Department's Office of Management Policy, Rightsizing, and Innovation (M/PRI). OBO reviews, confirms, and reconciles staffing requirements from the Rightsizing Review with current position data, adding specific details and functional requirements associated with each position. OBO uses this information to prepare an SRP-1, which is authorized by the OBO Director as the space program to which the architect designs the facility. All U.S. government stakeholders confirm the SRP and agree on the scope of the project moving forward. The SRP also informs the project's cost estimate.

Budget

Early programming information is used to formulate cost estimates—called current working estimates (CWEs)—that are refined as more project information becomes available (see Chapter 13). Early CWEs are used to develop full project budgets that the Department submits to Congress; these include site acquisition and maintenance, design, and construction.

Contracting with A-E Teams

To plan and design our projects, OBO contracts with private sector A-E-led teams for design and engineering services, and seeks teams that can produce the best possible product based on their design achievements and portfolio of work. OBO works with the Department's Office of Logistics Management (ALM) to solicit, evaluate, and select teams through the Federal procurement process (see Chapters 7 and 14). OBO also uses pre-selected Indefinite Delivery-Indefinite Quantity (IDIQ) A-E contractors for certain project services.

Design

The design process begins with a thorough analysis of the previously collected data, the SRP-1, the site, and the cultural context for the project (see Chapter 14). The A-E team then develops multiple concepts for how the program might be accommodated on the site, within the established budget. After validation by the OBO team, the A-E presents the three strongest concepts to selected advisors from private industry at the initial Industry Advisory Review and then to OBO senior management. Based on input from these meetings, OBO selects the strongest concept, or a hybrid scheme, as the preferred direction. A second round of Industry Advisor and OBO senior management reviews assesses the development of the selected scheme, ensuring that a high level of rigor is applied to the design's development.

Independent design and construction professionals conduct a value engineering review to ensure that the design is as cost-effective and efficient as possible, and submit recommendations to OBO (see Chapters 13 and 14). The project team determines which recommendations to implement.

At the OBO Director's Schematic Approval Presentation, the A-E team presents the significant features of the design to the OBO Director for affirmation that the project meets OBO's standards. The Director typically reviews and approves the project's design or requests certain changes. If the project is approved, the defining features of the scheme are locked in and any changes during design development or construction will require approval from the Director or his/her designee.

As the design is developed, the A-E team submits packages of drawings and specifications at pre-determined levels of completion. Each package undergoes an Integrated Design Review (IDR) in which the Department's technical teams review the submissions. The core project team then conveys clear and consistent direction to the A-E team.

The required design reviews and approval process are the same regardless of the delivery method. In Design/Bid/Build projects, the same A-E team completes the design, and complies with the series of Integrated Design Reviews until the drawings are complete. For Design/Build projects a Design Architect typically completes the schematic design through 35 percent and those "bridging" drawings are used for the Design/Build Request for Proposal. The Design/Build contractor's A-E team (the Architect of Record) then completes the construction documents and required reviews based on the bridging documents.

Certification

Before the construction of any overseas facility intended for the storage of classified materials or the conduct of classified activities, such as an embassy, the Secretary of State must certify to Congress that national security-related activities and personnel working in the facility will be protected, and that adequate steps have been taken to ensure the security of the construction. The Bureau of Diplomatic Security reviews the construction drawings, and must certify the adequacy of the design, as well as the security of the project and construction materials, before a full Notice to Proceed with construction can be issued (see Chapters 14 and 16).

Contracting with Construction Teams

Once the A-E-led team completes its contractual requirements for the design of a facility and Diplomatic Security certification and local zoning/building permits have been obtained, OBO contracts for construction or Design/Build services (see Chapter 16). (For a Design/Build project, this occurs once the Design Architect completes bridging documents.)

The Department seeks to hire construction contractors with verifiable records of consistent success delivering complicated overseas projects on time and within budget. Construction and Design/Build contractor selections are based on a combination of technical

factors and the proposed price. OBO may utilize a construction firm under a multi-year, IDIQ contract, or use the Federal contracting process to select a project-specific contractor.

Construction

OBO provides both management and technical resources to the project during the construction phase. The OBO Project Director leads an OBO on-site team, supported by a Construction Executive in Washington; and is responsible for the daily management of the project and its completion according to the contract (see Chapter 7). OBO personnel ensure that required security measures are taken during construction, and work to ensure the safety of the contractor's large, often multi-national, construction team (see Chapter 16).

The contractor is responsible for the quality of the construction, but OBO's on-site staff and Washington-based subject matter experts review submittals and inspect the work to ensure it is completed in accordance with the contract and the approved design (see Chapter 16). This inspection process builds upon the Integrated Design Reviews. The commissioning process verifies and documents that the facility and all of its systems and assemblies are installed, tested, and balanced to meet the Department's contracted requirements.

In addition, the Bureau of Diplomatic Security must accredit the property through a series of inspections to ensure compliance with the Overseas Security Policy Board (OSPB) standards, the Construction Security Plan, and the certified design (see Chapter 17). These inspections verify that all appropriate physical and technical security measures are effectively implemented, adequate, and meet OSPB standards, if applicable. The issuance of Substantial Completion is contingent upon accreditation by Diplomatic Security, acceptance by OBO of the fire protection and life safety systems, and the contractor successfully accomplishing key milestones related to facility management.

Operations and Maintenance/Facility Management

The new facilities are often more complex than previously existing structures at a post. As construction progresses, the post's Facility Manager and staff work with the OBO construction team on the transition and turnover of the new compound from construction to post-managed facility management and operations (see Chapter 18).

OBO's Office of Facility Management provides staffing recommendations to the post for its hiring of appropriate Locally Employed (LE) staff Facility Management personnel. The contractor provides training to the post's facility management staff to ensure that they can effectively and efficiently maintain the new systems. The staff must be familiar with the projected maintenance requirements for mission-critical equipment and building systems to assist in ensuring warranty enforcement.

Evaluations

Once a new facility is complete, OBO gathers comments, evaluations, and suggestions from a broad range of stakeholders, including the Department's project team, the private sector design and construction teams, maintenance staff, and the diplomats and other State Department and tenant agency staff at post. OBO analyzes all feedback, and incorporates useful items into design criteria or other policies to improve future projects.

CHAPTER 9

REHABILITATION, UPGRADE, AND IMPROVEMENT PROGRAM

PROJECT DEVELOPMENT &
EXECUTION

REHABILITATION, UPGRADE, AND IMPROVEMENT PROGRAM

In addition to its new construction program, OBO conducts an extensive program of upgrades and improvements of existing overseas facilities. OBO's Guiding Principles apply equally to these projects. Many of the Department's properties suffer from the effects of gradual degradation and continued use. Others need alterations to improve security, address changes in building codes or requirements in new laws, or accommodate changing foreign policy needs. OBO plans renovations of these properties strategically and addresses emergencies as they arise. OBO works to complete all of its renovation projects within scope, schedule, and budget, and to ensure that they meet the latest security and code requirements.

The largest of these projects fall into three primary categories: major rehabilitations, compound security upgrades, and lease fit-outs. Repair and Improvement projects have a more limited scope. Posts handle routine maintenance of facilities (see Chapter 19). OBO also refurbishes official representational residences (see Chapter 21).

Major rehabilitations follow a similar planning, design, and construction process to OBO's new facilities. Subsequent chapters describe the processes in more detail. In cases where these differ significantly, such as the separate prioritization and scheduling processes, the two types of projects are broken out. Where the processes are more similar, the possibility of minor changes to fit a major rehabilitation project is noted. The smaller OBO projects described here also follow similar processes, but are not always called out in the more detailed chapters.

Major Rehabilitation

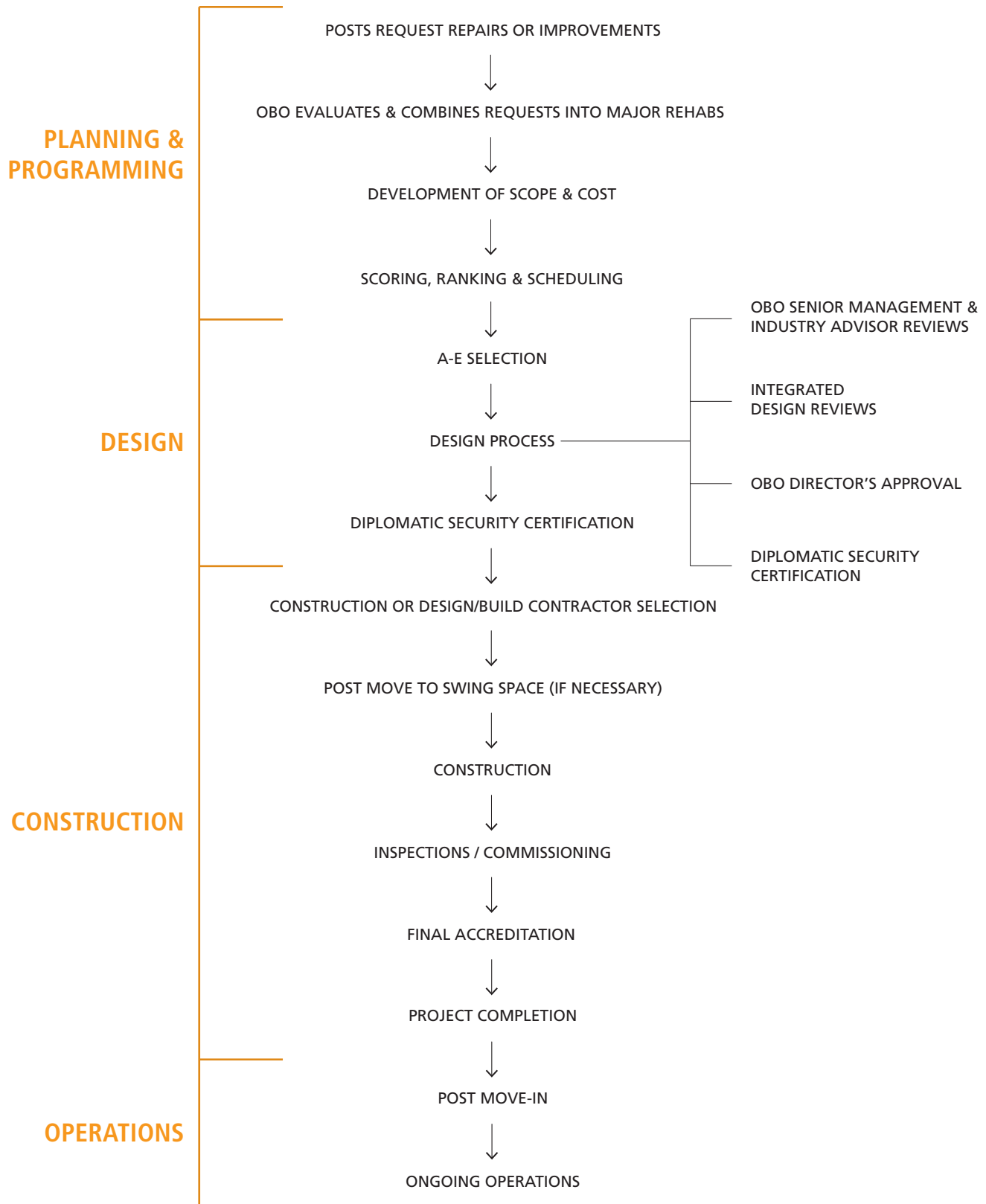
Major rehabilitation projects, known as "major rehabs", renovate, rehabilitate, expand, and upgrade various systems and spaces to extend a facility's serviceable life and to ensure compliance to the extent possible with all laws, codes, and regulations. They can provide new, more efficient space utilization and system technologies. Major rehabilitations may include architectural changes; upgrading and replacing mechanical, electrical, and fire protection systems; structural repairs; compound security upgrades (described below); changes to ensure

compliance with applicable codes or laws, or address changes to security standards; adding sustainability features; and the repair or replacement of finishes and fixtures. To obtain economies of scale and to minimize extended disruption to posts, these projects ideally encompass all of the work that a building needs.

OBO identifies potential candidates for major rehabilitations by evaluating the Repair and Improvement needs at each post, and determining whether these should be consolidated into a major rehabilitation (see Chapter 10). OBO evaluates any security needs in conjunction with the Bureau of Diplomatic Security. The Project Manager then works with the technical team to develop complete scope requirements, often based on a visit to and consultation with post, and then prepares a schedule and current working estimate (CWE) with a complete picture of what each project would entail (see Chapter 13).

OBO evaluates each proposed major rehabilitation project based upon a set of weighted criteria that range from the facility's current overall condition to security and life safety concerns, sustainability factors, any cost savings resulting from the repairs, and whether and when the post is on the list for a new embassy or consular compound. Once scored and ranked, prioritized projects are in line to qualify for available funding. Based on its review, OBO develops a proposed major rehabilitation program for the next six fiscal years, as well as out-years, allocating prioritized projects based on the anticipated level of funding for each year. Once the OBO Director approves the plan, the projects are carried out as funding becomes available through the budget process (see Chapter 5).

As with new construction, OBO utilizes private sector architect-engineer (A-E) teams, construction, and Design/Build teams, managed by an OBO project team (see Chapter 7). Programming and early project development is conducted according to the needs and scope of the project (see Chapter 12). The design and construction process for major rehabilitation projects follows a similar process as that for new construction projects, with modifications based on scope and complexity (see Chapters 14 and 16). Major rehabilitation projects are sometimes more challenging to execute than new construction, since the post must be able to maintain its operations throughout, sometimes from a swing space.

MAJOR REHABILITATION PROCESS

Phasing the project can be critical to its success. The design goals and standards are the same as for new construction, applied to the extent possible given the constraints of the existing facility (see Chapter 15). It can be challenging, and costly, to adapt an existing building to meet current codes and standards for security, fire safety, seismic requirements, and accessibility. Careful attention is paid to historic preservation on major rehabilitations for culturally sensitive properties (see Chapter 21).

Compound Security Upgrades

Security upgrade projects provide enhanced protection against terrorist attacks and mob violence. These projects, sometimes referred to as physical security upgrades, include construction of perimeter, building envelope, and internal physical security upgrades, as well as technical security upgrades. OBO and the Bureau of Diplomatic Security annually review the Risk Matrix to identify candidates for replacement or for major security enhancements (see Chapter 10).

Comprehensive or major compound security upgrade projects are coordinated with new embassy/consulate and major rehabilitation project plans. Compound security upgrade projects are pursued at posts that are too low on the Top 80 List to get a new facility, and posts that are high on the list but not scheduled for replacement in the next 6-8 years. The goal is for each post to have either a new facility that meets current security standards, or a comprehensive security upgrade project that addresses the physical security deficiencies to the extent practical given limited setback, building construction, and site-specific constraints. The compound security upgrade program also addresses changes to security standards that Diplomatic Security has identified. Working with Diplomatic Security, OBO ensures that new countermeasure requirements are ranked with existing requirements to determine scopes and schedules, and determines the requirements to be applied to a given post.

As potential projects are developed, each one is surveyed to determine the scope of needed and practical physical security upgrades. These may include campus access pavilions, perimeter upgrades, vehicle barrier upgrades, forced entry/ballistic-resistant (FE/BR) installations and upgrades, and other physical security measures.

OBO designates a Project Manager to coordinate all phases of each major security upgrade project, from planning and development through construction and closeout. The design and construction process for compound security upgrades is similar to that for major rehabilitation projects and can utilize Design/Build or Design/Bid/Build delivery methods.

Smaller security upgrades are also necessary and practical. Minor physical security upgrade projects are low-cost, high-impact projects generally managed by posts. OBO provides funding, and design assistance if needed. Emergency response projects vary depending on the nature of the incident, but include funding and technical assistance to assess structural damage, construct necessary upgrades, and reconstruct physical security features that have been damaged or destroyed.

Lease Fit-Outs

The U.S. government sometimes decides to lease functional, representational, or residential facilities rather than construct or purchase properties. When this occurs, OBO uses a lease fit-out to modify and adapt a commercially leased space to meet the Department's security, safety, and functional needs. Properties range from existing space in multiple-tenant buildings to sole-occupancy, purpose-built facilities.

A post's formal request to lease a space for a specific purpose begins a lease fit-out project. OBO forms a small team to investigate and validate the request, and determines whether funding is available or identifies a strategy for requesting funding through the budget process. If the request involves tenant agencies, each agency must fund its own share of the lease fit-out, and must fund the entire project if it is the only occupant. OBO funds the State Department portion of each project. If the OBO Director approves the request, a multidisciplinary project team led by a Project Manager proceeds with the project, a course of action, and a project CWE. Posts may approach OBO with a property in mind, or OBO may assist in locating suitable properties. Diplomatic Security is involved with the site search and subsequent fit-out plans and must approve both the selected site and plans. Security upgrades are negotiated in the lease with the landlord; in any case, the leased property must be more secure than the property it is replacing.

The programming, planning, property search, and design processes are similar to those used in a new construction project, with modifications as needed depending on the project's scope and complexity. However, the lease fit-out may be constructed by the landlord (in keeping with the terms of the lease) or their contractor, the U.S. government's contractor, or a combination of these. OBO monitors the fit-out and coordinates scheduling. Once the project is complete it must be accredited or reviewed by Diplomatic Security (depending upon the nature of the project) before OBO accepts the work and the post can move into the new space.

Repair and Improvement

Smaller in scale than major rehabilitation projects, Repair and Improvement (R&I) projects involve modifications to fire protection systems, utility systems, energy conservation technologies, elevators, or roofs. Some projects aim to reduce risks from natural hazards such as earthquakes, floods, and hurricanes. Others remediate environmental contamination by hazardous materials such as asbestos or radon. Some make facilities uniformly accessible to individuals with disabilities. Others install cost-effective, reliable, and maintainable utility systems, and technologies that provide long-term energy savings. A wholesale replacement of a major building system or multiple systems, such as HVAC, electrical, plumbing, or roofs, would be considered a major rehabilitation; repairs, replacement of component parts, or minor improvements to those systems are considered Repair and Improvement projects.

Posts submit requests for Repair and Improvement projects as soon as a need is identified. OBO reviews and validates all of the requests, determining if each is properly scoped and accompanied by a realistic cost estimate. (OBO's Office of Cost Management prepares a current working estimate for projects over \$500,000.) OBO then reviews and scores validated Repair and Improvement requests based on weighted evaluation criteria. Once scored, prioritized requirements compete with other requirements worldwide for available funding. OBO develops an annual plan for these projects, prioritizing urgently needed projects, especially those affecting fire and life safety. OBO also

looks at appraisals or other market value estimates for the properties requiring significant repair or improvement to determine whether the project makes financial sense, compared with selling the property and buying or leasing something better. The OBO Director approves an annual spending plan for Repair and Improvement projects.

Projects are managed from Washington or by the post depending on the project's cost and complexity and the availability and level of staff expertise at post. The project's nature and complexity also determine whether an OBO permit is required (see Chapter 19), the appropriate level of design review, and whether OBO staff, cleared American A-E teams, or local A-E firms in the host country design the project. Design reviews verify technical accuracy and life safety requirements, ensure minimum security standards, and confirm the preservation of building's functionality through a smaller-scale version of the Integrated Design Review process (see Chapter 14). OBO also prepares an execution strategy for the project—who will handle contracts, security arrangements required during construction, and what accommodations need to be made for post's operations. OBO works with stakeholders to develop a plan for effective construction phase supervision and to ensure that the project will be completed on schedule, within budget, and in accordance with the scope of work. Some permitted projects also require an approved Construction Security Plan (see Chapter 17).

CHAPTER 10

PRIORITIZATION, SCHEDULING, AND DELIVERY METHOD

PROJECT DEVELOPMENT &
EXECUTION

PRIORITIZATION, SCHEDULING, AND DELIVERY METHOD

The 1999 Secure Embassy Construction and Counterterrorism Act (SECCA) mandates that the Department replace facilities at posts with the greatest physical and technical security vulnerabilities. Information and analysis from the Bureau of Diplomatic Security (DS) drives the prioritization of posts on a “Top 80” list of candidates for replacement facilities. OBO plans new facilities for these posts using a multi-year Capital Security Construction Program schedule.

Major rehabilitation projects are prioritized based on a set of weighted criteria, including the benefits to the post of the proposed project and whether a post is on the “Top 80” list. These projects are also scheduled over a multi-year timeframe as funding allows.

OBO selects a delivery method for design and construction services for each scheduled new construction and major rehabilitation project.

PRIORITIZING AND SCHEDULING PROJECTS

OBO separately prioritizes and schedules new construction projects and major rehabilitation projects.

New Construction Prioritization and Scheduling

The Bureau of Diplomatic Security annually provides OBO with risk rankings for overseas office buildings—embassies, consulates, and off-compound office annexes. Working from these rankings, OBO determines the “Top 80” list of posts to be replaced. Posts with a new embassy or consulate that has been awarded, is already under construction, or was built to Overseas Security Policy Board (OSPB) standards are not included. The remaining posts are ranked by their vulnerability score, highest to lowest. Where multiple facilities are rated at a post, the highest rated (most vulnerable) facility’s score is assigned to the post. The list is approved by the Under Secretary for Management with the concurrence of the Bureau of Diplomatic Security. Moving a post into the “Top 80 list”—the first 80 posts in rank order—is the first step to initiate a new embassy or consulate project. The Department only spends capital security appropriations for posts on this list.

Once the Top 80 list is complete, OBO then develops the Capital Security Construction Program schedule of construction awards that match the projected funding for each fiscal year. The schedule covers the current fiscal year and the following five years. Each project is tracked under the date of the planned award of its construction contract. The remaining projects are included as “out year” projects. In addition, OBO develops an Implementation Plan, which schedules projects over the same time frame, but takes into account the fact that some high-risk sites cannot yet be replaced due to conditions on the ground, such as an ongoing civil war. The plans are intentionally flexible. Some project starts are delayed due to challenges with host government or city approvals, property acquisition, unavoidable scope changes late in the project’s development, or project award. To meet these challenges, OBO selects backup projects for each year that may be advanced on the list. They are chosen based on the existence of a ready-to-build site within the required timeframe, the priority order of risk scores, and the correlation of available funding to the project cost. OBO’s Director approves the schedule, as well as the decision to move forward any backup projects.

New Embassy Complex Alternatives

As part of its evaluation of Diplomatic Security’s risk matrix, OBO identifies posts that may be candidates for alternative solutions to provide significantly improved security, life safety, and overall functionality for less cost than a new embassy or consulate. These posts are either:

- Legacy facilities that have a unique, historic, or symbolic location and where OBO can develop an appropriate “stay-in-place” solution;
- Legacy facilities in markets where finding an appropriate site is virtually impossible;
- Too small a mission to justify an entire new embassy or consulate compound, or
- Secure posts with a small portion of staff located somewhere outside that secure compound.

OBO thoroughly analyzes the existing property at these posts, including a full evaluation with the Bureau of Diplomatic Security of all security deficiencies, and then develops a comprehensive master plan for redeveloping the existing complex if appropriate.

Major Rehabilitation Prioritization and Scheduling

OBO identifies potential candidates for major rehabilitations by evaluating the Repair and Improvement needs at each post, and determining whether these should be consolidated into a major rehabilitation. This may be based on the overall number of needs at a post, or similar repairs to several separate buildings. Combining smaller projects into a major rehabilitation can reduce contracting costs and disruptions at post. OBO evaluates any security needs in conjunction with the Bureau of Diplomatic Security. In establishing the scope of the proposed work, OBO considers the long-term outlook of the post. If a post is included in the Top 80 list, but not yet scheduled for replacement, the goal of a major rehabilitation would be to extend the useful life of the existing facility until it can be replaced. Once needs and priorities are set, the Project Manager works with the technical team to develop complete scope requirements, often based on a visit to and consultation with post, and then prepares a schedule and current working estimate (CWE) with a complete picture of what each project would entail.

OBO scores each proposed major rehabilitation project based upon a set of criteria to establish its relative priority. Criteria range from the facility's current overall condition to security and life safety concerns, sustainability factors, any cost savings resulting from the repairs, and whether and when the post is on the list for a new embassy or consular compound. While security is one of the criteria, the major rehabilitation program does not replace the Compound Security Upgrade program (see Chapter 9), and is intended to address system replacement and other non-security-related issues at post. OBO weights the criteria in order to define the level of importance or priority assigned to each. Once scored and ranked, prioritized projects are in line to qualify for available funding.

EACH FACILITY REQUIREMENT IS RANKED AGAINST 14 SPECIFIC CATEGORIES:

Basic Information:

- 1) Specific Building System(s) to be Addressed by Project
- 2) Vulnerability (including Life Safety) to be Remedied

Security:

- 3) Risk Index
- 4) Number of Persons Directly Affected

Functionality:

- 5) Current Condition
- 6) Impact on Operations
- 7) Effect on Mission of Proposed Functional Improvement
- 8) Accessibility Issues

Business Case:

- 9) Strategic Priority
- 10) Cost Avoidance
- 11) Facility Replacement Timeline
- 12) Facility Condition Index
- 13) System Condition Index
- 14) Sustainability

Based on its review, OBO annually develops a proposed major rehabilitation program award schedule that advances the prioritized projects based on the anticipated level of funding for each year. The proposed schedule covers the subsequent six fiscal years, as well as out years. The schedule is broken down based upon the two funding sources for major rehabilitation projects (see Chapter 5). The schedule is approved by the OBO Director, and the projects are carried out as funding becomes available through the budget process.

SELECTING THE DELIVERY METHOD

OBO selects a delivery method for each project on the approved Capital Security Construction Program and Major Rehabilitation Schedules. Delivery methods have cost, schedule, risk, and design control implications that must be evaluated relative to the characteristics of each project. The OBO Director must approve the delivery method for each project. OBO uses two principal delivery methods to design and construct diplomatic and consular facilities—Design/Bid/Build and Design/Build. Neither is a default; different projects benefit from different methods.

- **Design/Bid/Build**

This delivery method involves separate contracts for design and construction services. OBO selects an architect-engineer (A-E) team of record to prepare a full set of design and construction documents, and awards a design services contract through either a project-specific solicitation for an A-E team, or a task order under an existing Indefinite Delivery-Indefinite Quantity (IDIQ) contract (see Chapters 7 and 14). The A-E team is given a design-to cost figure, based on the budget of the project, and a schedule for completing the design.

At the end of design—when the construction documents are 100 percent complete, including applicable entitlement issues (local zoning, land-use, and building permits, etc.) and Congressional Certification has been issued (see Chapter 14)—a Request for Proposal (RFP) is issued for a builder. The Department then enters into a contract with the successful contractor for construction of the project (see Chapters 7 and 16).

- **Design/Build**

The Design/Build delivery method involves a single contract with an entity to provide both A-E of record and construction services (see Chapter 9). For larger scale Design/Build projects, OBO typically begins with a set of bridging documents—drawings and specifications developed to approximately a Design Development level of detail, typically by an independent A-E firm under an IDIQ contract. The bridging A-E team is given a design-to cost figure based on the project's budget. Bridging allows OBO to define the direction of the design and set the bar for the desired quality. The bridging documents are included with the RFP for Design/Build services.

Factors for consideration in determining between a Design/Bid/Build and a Design/Build project include:

- The project's location, size and complexity,
- The schedule (including the overall delivery period),
- The date by which OBO can purchase a site and/or begin project development,
- The local permitting process and its requirements, and
- Any special security requirements.

While the delivery method selection is made based on the specific characteristics of each project, in general, Design/Bid/Build may be preferable for major rehabilitation projects. This method allows OBO to gather as much information as possible about the existing structure and conditions, and to develop more detailed documentation before seeking bids from construction contractors (see Chapter 16). This can in turn reduce the number of requests for equitable adjustment due to field conditions.

OBO uses early contractor involvement (ECI) in some Design/Bid/Build projects. A construction contractor is selected while the project is still in the early design stages, and their early input regarding constructability, construction feasibility, and cost is instrumental in the development of the design.

CHAPTER 11

SITE SELECTION

PROJECT DEVELOPMENT &
EXECUTION

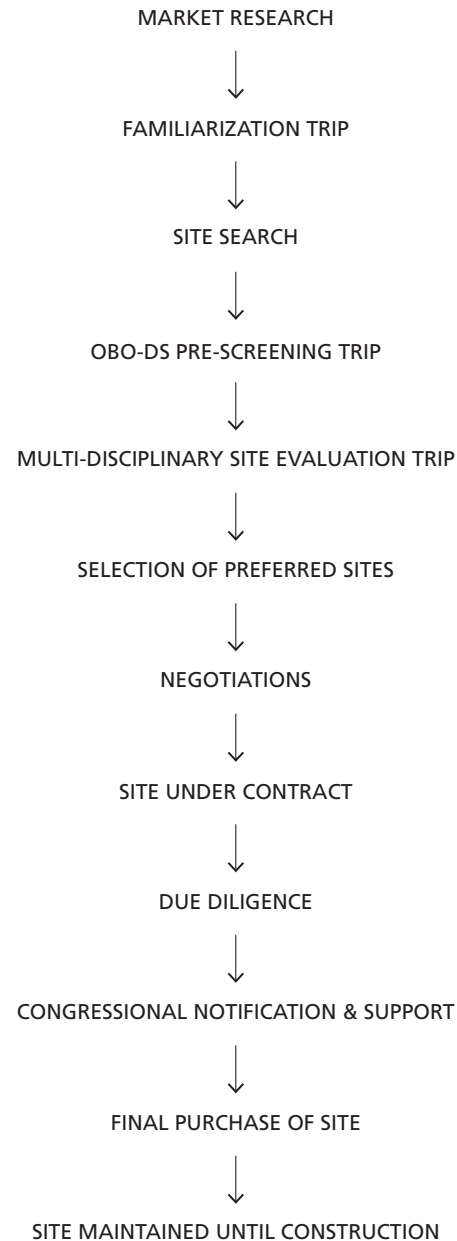
11. SITE SELECTION

SITE SELECTION

An embassy or consulate will represent the U.S. government to the host nation for decades. The selection of its site is a critical first milestone in the development of an appropriate functional and representational platform for the implementation of U.S. foreign policy objectives. The site acquisition process typically begins at least 5-6 years before the fiscal year in which the construction contract is scheduled to be awarded, with the goal of acquiring a site approximately 3 years before the construction award (see Chapter 10). For example, if an embassy is scheduled for construction award in fiscal year (FY) 2018, site selection would normally begin by the start of FY 2012 or 2013, to allow for a Design/Bid/Build or Design/Build award.

The site must meet the Department's security and operational requirements to support effective diplomacy and consular work, both now and in the future. Successful real estate transactions must carefully consider the specifics of location and context, and whether the site can accommodate the required program. OBO has developed a number of tools to focus its site searches to identify preferred areas and consider the redevelopment of U.S. government-owned properties.

Wherever possible, OBO selects urban locations to facilitate a stronger connection to the host government and the community. These sites typically provide greater links to public transportation, making the mission more accessible to visitors and staff. Urban areas such as central business districts are often desirable locations. Their symbolic value and proximity to the host government and other diplomatic missions facilitates the work of U.S. diplomats, and they may also offer a greater level of security. However, land costs, sufficient lot sizes, and zoning restrictions can make assembling viable sites more difficult. Embassies and consulates should support neighborhood urban design goals and form a part of active, mixed-use districts wherever possible. Exploring smaller sites than OBO has historically required allows the Department to consider a substantially wider variety of locations, especially in high density areas or well-established neighborhoods. While the site must accommodate all of the functions of the new embassy or consulate, access to local amenities may allow a reduction in some of the support services provided and a smaller footprint.

SITE SELECTION PROCESS

The physical characteristics of a site impact its overall security. Multiple vehicular access points and sufficient room for security setbacks must be factored in when weighing alternative locations. OBO also considers the possibility of utilizing any unique site attributes, such as the existing topography or site geometry, to help secure the new mission.

In some cases, OBO determines that we can redevelop an existing site instead of building in a new location (see Chapter 8). Redeveloping properties owned by the U.S. government can reduce the cost and time required to acquire a new site, and take advantage of the symbolic value of the existing location. If needed and available, the acquisition of smaller adjacent lots can allow for redevelopment or future expansion.

Site Evaluation

Sites are selected, evaluated, and acquired through a standardized multi-disciplinary process led by OBO's Division of Site Acquisitions. Initial planning is conducted to determine the required size and dimensions of the site, other potential site restrictions, and the overall estimated project cost. The first iteration of the Space Requirements Program, or the SRP-O, provides basic information about the post's size and functions, including an initial estimate of the building's required area based on the Department's most recent Rightsizing Review and OBO's space and facility sizing standards, housing and support space needs, room for future growth, and any other unique requirements (see Chapter 12).

Using this early programming information coupled with thorough knowledge of the local market gained by a familiarization visit to the post and market studies, OBO develops a search strategy, a range of anticipated site sizes, and an analysis of possible and preferred locations. An OBO-hired international real estate firm, the post, a local broker familiar with the market, or the host government examines the city and surrounding area for sites that meet the Department's criteria.

An initial pre-screening trip to the post with the Bureau of Diplomatic Security eliminates any proposed sites that obviously do not meet security requirements. To ensure an objective and holistic evaluation, a multidisciplinary site evaluation team from OBO, the Bureau of Diplomatic Security, and the post then reviews the remaining sites

on the basis of established criteria: security, location, development, communications, planning/zoning, environmental attributes, and any potential acquisition issues. The team uses OBO's site evaluation tool to evaluate, score, and rank the prospective sites.

The team then briefs the OBO Director on the preferred site or sites. With the Director's approval, OBO negotiates to enter into an option or conditional contract for the preferred site or sites.

Due Diligence

Once a site is under contract, OBO performs due diligence, determining that a site is administratively and technically acceptable for U.S. government use, prior to finalizing its acquisition. Due diligence is completed for the preferred sites (typically the top two sites) identified in the evaluation process. (If OBO is considering multiple sites, the information becomes part of the analysis leading to a decision about which site to purchase.)

OBO conducts legal and administrative/political due diligence investigations, including title searches; confirmation that no archeological, cultural, religious, or historical attributes preclude site development; confirmation of aviation flight restrictions and paths; and approvals from the host government Ministry of Foreign Affairs and municipal authority, as required.

Technical due diligence typically is performed by the architect-engineer (A-E) team contracted for project development support services. A more detailed preliminary site utilization diagram verifies that the site has sufficient setback, access, proximity to utilities, and can fit all of the program requirements. Technical due diligence also includes the following:

- **Boundary, Topographic, and Utility Survey**

This survey describes all physical site features and existing conditions of the proposed embassy/consulate property and any areas outside its limits that affect design and construction. Conducted by an A-E firm who may subcontract to a local surveyor, it confirms the size of the site and the possibility of easements, encroachments or other issues. It is used to develop site utilization diagrams and preliminary grading plans (see Chapter 12).

11. SITE SELECTION

- **Environmental Site Assessment**

This assessment evaluates whether current or historical activities on or near the subject property may have resulted in significant impacts by hazardous substances known as recognized environmental conditions. The A-E firm outlines local regulations if potential contamination is identified; OBO's Office of Safety, Health and Environmental Management provides advice on remediation.

- **Sustainability Assessment**

Sites are screened for their ability to advance site-related sustainability goals such as connecting to local energy systems; harvesting alternative energy resources (such as solar, geothermal, and wind); retaining and reusing water; proximity to public transportation; and the energy-efficient orientation of the future embassy/consulate building.

- **Geotechnical Survey**

This survey ensures that the site is free of conditions such as sink holes that would render it impossible or very difficult to build upon. A U.S.-registered geotechnical consultant with a professional engineering license prepares the report. A local consultant can be selected in countries where reliable engineering services are available.

- **Risk Assessment**

This Bureau of Diplomatic Security study identifies any and all security requirements for the project that are unique to the site.

- **Additional Surveys**

Depending on site characteristics, additional studies may be needed, such as unexploded ordinance or de-mining surveys, or traffic flow, environmental impact, flood, or tree preservation studies. The Project Manager and the Division of Site Acquisitions work with the project team to determine the extent of these studies.

Once a site is under contract, OBO also initiates a Project Development Survey (PDS). This includes research on relevant local requirements, resources, and legal issues, including a Site Maintenance and Development Plan (SMDP) that examines the site, anticipating potential challenges and costs (see Chapter 12).

Site Acquisition

If no material issues become apparent during due diligence and the preparation of the Project Development Survey, the Division of Site Acquisitions moves forward with the acquisition process. This includes execution of OBO-approved closing documents and title transfer, as well as any required approvals from the host government's Ministry of Foreign Affairs and/or the municipal government.

OBO submits a Congressional Notification Package, also known as the "Hill Package," that informs Congress of post's requirements, the project scope, and associated costs for acquisition, development, and construction. Congressional notification must be completed before the site is purchased. The OBO Director approves the final purchase and OBO, in coordination with post and local counsel, closes on the site. The site is then secured and maintained according to the Site Maintenance and Development Plan until construction can begin. It is also recorded as an asset in the Department's property management records. Maintenance of the new site, while funded by OBO, is the post's responsibility until OBO and the construction contractor begin to develop the site.

CHAPTER 12

EARLY PROJECT DEVELOPMENT

PROJECT DEVELOPMENT &
EXECUTION

EARLY PROJECT DEVELOPMENT

There are commonalities to each OBO project—security requirements, fundamental elements of the diplomatic and consular mission, and the need to manage costs—and each post also has its own unique requirements and challenges. OBO conducts research and programming early in a project to help ensure that the stakeholders have all of the necessary information for a successful project. This research can reduce the need for later, potentially costly, changes. The Space Requirements Program (SRP) defines the scope of a new construction project; an early version with basic facts informs the site search, while a more detailed SRP provides the project program for the architect and designers. Varying levels of detail are needed at different points in time. The Project Development Survey (PDS) collects information on local requirements, resources, and legal issues affecting real estate, design, and construction at a potential site. OBO modifies the SRP and PDS documents for major rehabilitation projects to ensure that all necessary information is collected, analyzed, and shared with the appropriate parties.

SPACE REQUIREMENTS PROGRAM

OBO produces a detailed program of requirements that must be met by a new facility or a major rehabilitation. These are produced at varying levels of detail depending upon the information needed at each step of the process, or for a particular project.

New Construction SRP

Effectively and efficiently programming an embassy or consulate is fundamental to its success. The proper identification and sizing of work, common, and representational spaces set the groundwork for the building's architecture. To create the program for a new facility or major rehabilitation, OBO evaluates a mission's functional and staffing needs, translates those requirements into a building area, and generates a Space Requirements Program (SRP). The SRP accurately and concisely depicts a post's functional needs and defines the scope of a project. (An SRP is not typically done for Repair and Improvement projects, security upgrades, systems upgrade projects, or other renovations that do not impact existing space allocations.)

Accurate staffing projections are critical for determining the size of the buildings, the budget, and the overall scope of the project. OBO begins the SRP process with the latest Rightsizing Review for the post conducted by the State Department's Office of Management Policy, Rightsizing, and Innovation (M/PRI). OBO's Office of Strategic Planning reviews the Rightsizing Review's projected staffing requirements with current position data, and confirms specific details and functional requirements associated with each position, such as whether it requires Controlled Access Area (CAA) space. OSP validates this information with the post, the regional bureau, and tenant agency headquarters. The baseline numbers of positions in the validated Position Dataset match the projected figures in the Rightsizing Review. The Office of Strategic Planning also provides overall requirements such as any required housing for Marines or other mission personnel, whether a warehouse is needed, and any unique issues.

The Office of Design Coordination identifies post-specific functions and applies OBO's space standards to the validated Position Dataset, synthesizing technical requirements to determine facility size and scope in the SRP. The standards are established and updated based in part on a consideration of private sector and domestic U.S. government space allocations, and are applied uniformly to all parts of a project. The standards make extensive use of open workstations, as well as collaborative workspace and shared conference rooms, copy rooms, kitchenettes, and other support spaces.

The SRP typically includes the size and number of primary buildings, the required number of desks, common and representational spaces, any specific functional requirements, maintenance shops and storage requirements, parking requirements, support buildings, recreational requirements, etc. OBO evaluates the program for each project based on the unique needs of the post and provides growth space to accommodate changes due to foreign policy developments, changing numbers of visa applicants, and/or new initiatives.

There are two primary iterations of the SRP. Each is used for a different purpose.

■ **SRP-0**

The first SRP for the new space or renovation is used to inform the site selection, establish the early project budget, and facilitate early planning (see Chapter 11). Less detail is required for a site selection than for the design of a facility, and so this SRP includes placeholders, assumptions, and defaults. It provides an initial estimate of the building's required area, and may be validated with post depending on the date of the latest available Rightsizing Review. This SRP is issued during the pre-design planning process and is updated as needed.

■ **SRP-1**

The next, more detailed, iteration of the SRP incorporates project-specific information obtained from OBO staff interviews at post, tenant surveys, and conversations with other State Department bureaus. It includes vetted, reconciled staffing based on the most recent M/PRI Rightsizing Review and technical requirements from each tenant agency. The document is circulated for approval within OBO, and by post and tenant agency headquarters, culminating in its authorization by the OBO Director. It is then issued as the space program from which the A-E team begins to design concepts for the facility (see Chapter 14). OBO's Office of Cost Management uses it to develop or update a current working estimate of project costs (see Chapter 13). The Director must approve any significant subsequent changes.

Major Rehabilitation SRP

OBO produces SRPs for major rehabilitation projects that are similar to those described above. In general, these are based on the most recent Rightsizing Review, with confirmation of the data from the post and from any tenant agencies that are affected. If the project involves extensive amounts of office space, OBO will consult with the Office of Management Policy, Rightsizing, and Innovation about whether a revision or update to the latest Rightsizing Review is appropriate.

**PROJECT DEVELOPMENT SURVEYS
AND OTHER RESEARCH**

The Project Development Survey provides, evaluates, and analyzes information critical to OBO's comprehensive planning of the project, including issues that might impact scope, schedule, or cost. While diplomats—and diplomatic and consular facilities and missions—receive special privileges from the host government, the construction contractor is still subject to local laws, codes, and regulations and must work with the host government to successfully complete a project. The PDS includes comprehensive research on local requirements, resources, and legal issues affecting real estate, design, and construction.

New Construction PDS

The PDS for a new construction project includes information on the site that is under contract for purchase (see Chapter 11) to confirm that the site is buildable and provide information on factors that influence the project's design and construction costs. OBO, the post, and an architect-engineer (A-E) firm complete a detailed questionnaire, researching and documenting a wide variety of project issues that impact site development and building design options. The primary objectives of the PDS are to develop a detailed understanding of the local laws, rules, and processes involved with a U.S. contractor performing a design and/or construction project in the host country, and to collect adequate information to begin detailed project development. The PDS is divided into three parts:

■ **Part 1 – Legal Counsel Business Assessment**

Completed by a locally hired attorney, this includes questions of tax, labor laws, zoning, the building permit process, and other issues.

■ **Part 2 – Local Post Administration Assessment**

Completed by post, this addresses currency, customs, and other administrative issues.

■ **Part 3 – Architectural and Engineering Assessment**

Completed by OBO or a private sector A-E team, usually assisted by a local A-E firm, this assessment documents the availability and cost of materials, labor, and utilities.

The Site Maintenance and Development Plan examines the preferred site and anticipates potential problems, captures costs, and identifies site maintenance, basic utilities, site mitigation work, and other items that will need to be addressed after site acquisition and until a contractor begins work on the site. It also includes costs for security and site maintenance. OBO determines how to perform activities necessary to prepare the site for construction and keep the work on schedule and within budget. (Certain items, such as demolishing existing structures or removing hazardous materials, may be included as part of the site acquisition contract.) The implementation of the Site Maintenance and Development Plan begins as soon as the site is acquired.

Due diligence studies and the Site Maintenance and Development Plan are also conducted in parallel with a PDS (see Chapter 11). The A-E team uses the SRP and other due diligence information to develop the Building Massing and Site Utilization Diagrams. The A-E team will also provide preliminary grading diagrams should the site have considerable changes in elevations.

In some cases, OBO conducts or commissions additional project development studies. For example, a consular study at a high-volume post can help OBO to understand what does and does not work in the current space, and how best to handle the flow of visa applicants.

The planning process also includes the development of early cost estimates. The A-E team provides construction cost estimates based on information collected in the PDS and the site utilization, building massing, and grading diagrams. OBO combines these with other project-related costs such as furniture, construction supervision, security management, A-E design costs, Value Added Taxes, telephones, and other items (see Chapter 13).

Major Rehabilitation PDS

For major rehabilitations and other significant renovation projects, OBO completes a modified PDS to provide a detailed understanding of the local laws, rules, and processes involved with a U.S. contractor performing a construction project in the host country, or for local contractors, if applicable. The PDS is customized to what is needed for a given project, but generally focuses on cost data, local permitting, and the host government approval process. In some cases, additional studies are used to determine the best available lay-down area for construction or to address other issues specific to a post.

CHAPTER 13

COST MANAGEMENT

PROJECT DEVELOPMENT &
EXECUTION

COST MANAGEMENT

The Office of Cost Management is responsible for identifying, estimating, and managing the costs of OBO's projects. OBO develops current working estimates (CWEs) of total costs at each stage (from inception to completion) for new construction, major rehabilitation, and significant Repair and Improvement projects. Smaller projects may have a single cost estimate. As projects progress, the estimates are refined and become more accurate as more information is available. Before awarding an architect-engineer (A-E) contract for design or bridging documents, OBO establishes the project budget. OBO also creates Independent Government Estimates (IGEs) for specific contract actions during a project.

For major projects, OBO uses value engineering to recommend alternatives that improve function and value for U.S. taxpayers. When executed properly, value engineering can help ensure realistic budgets, identify and remove non-essential capital and operating costs, and clarify the economic impact of various project development and design decisions. In the interest of ensuring the best value to the U.S. government, OBO uses life-cycle cost analysis, as well as sustainability principles, to ensure that facilities provide the most cost-effective option, without compromising their quality and ability to fulfill required functions.

Current Working Estimates

The current working estimate is an estimate of the total cost of a project, required for all projects over \$500,000. It is created using historical averages, comparisons to similar projects, and site-specific economic information. Each current working estimate reflects the total project cost, including:

- Site acquisition (if applicable),
- Site Maintenance and Development Plan costs (if applicable),
- Design,
- Construction,
- Project supervision,
- Construction security,
- Value Added Tax (VAT), if required,
- Furniture and furnishings (if applicable),
- Art (if applicable), and
- Contingency.

For major projects, current working estimates are completed at five levels of detail. There may be more than one estimate at each level if the information changes, and the differences between the levels are not absolute—each estimate is as detailed and refined as possible, based on the available information. The earliest estimates are rougher and include a greater contingency to allow for unknowns. Later estimates are more accurate, as more information is available about the project and its design, local labor rates, ongoing construction in the area, the availability of materials and skilled labor, and other issues. Estimates prepared by A-E teams are critically important to confirm that the project is projected to be built at or below the design-to cost in their contract.

- **Level 1 ("Top 80") estimates** are produced as part of the Capital Security Construction Program to allow OBO to match projects with expected annual funding levels (see Chapters 5 and 10). They are based on the number and type of buildings proposed for the new facility, the number of desks, the city in which the facility will be located, the proposed funding year, and historic average costs for similarly-sized projects.
- **Level 2 ("Budget") estimates** are used to develop budgets, and for site acquisition analysis and site planning. They are refined based upon the potential site being considered; if the Department investigates multiple sites, then an estimate is done for each. Information from the Project Development Survey (PDS) on local markets, taxes, and importation and customs regulations, as well as a cost estimate for the Site Maintenance and Development Plan, is used if available (see Chapter 12). Level 2 estimates include an analysis of possible risks to the project's schedule and cost, and a value to cover potential problems.
- **Level 3 ("FinPlan") estimates** are developed for OBO's annual financial plan and to notify Congress of the site purchase and project costs. They are based on the type of contract (with a local or American contractor), and specific information about the site and the project's requirements. They are also used to prepare the Request for Proposal (RFP) from the builder for a construction or Design/Build contract.

- **Level 4 (“Award”) estimates** contain more detailed information on the proposed design and engineering. Level 4 CWEs are based on the award amount of the largest contract required for the project (usually construction), and include the successful contractor’s detailed cost proposal.
- **Level 5 (“Post-Award”) estimates** are issued as the construction or other contracts are modified over the course of the project. They are based on contract documents and the construction drawings and specifications, and are used after the award to adjust for change orders and for contract completion.
- Price analysis to determine the impacts of changes to OBO standards, or economic changes; and
- Comparisons of OBO costs to industry standards.

Life-Cycle Cost Analysis

Life-cycle cost analysis is a requirement for all Federal Agencies, per Executive Order (EO) 13327, Federal Real Property Asset Management for “property owned, leased, or otherwise managed by the Federal Government, both within and outside the United States”. Life-cycle cost analysis evaluates the long-term ramifications of a system or material—not just planning, design, construction, and acquisition costs, but also the cost of its operations and maintenance, rehabilitation, depreciation, and eventual demolition or replacement. The effective use of life-cycle cost analysis is to reduce long-term operations and maintenance costs and resource (energy and water) consumption. OBO performs life-cycle cost analysis as part of planning, design, sustainability, and value engineering.

Independent Government Estimates

An Independent Government Estimate is an estimate for a specific contract action, in the same format and level of detail that the contractor provides in response to a request for proposal or solicitation. IGEs include direct and indirect costs of the contract, such as material prices, labor charges, general requirements, contractor overhead, and profit. Federal acquisition regulations require an IGE for any contract or contract modification(s) exceeding a value of \$150,000. This includes contracts for A-E services, construction contracts, Design/Build contracts, task order awards, leases, etc. The IGE is based on the RFP for the contract action, including the scope of work. The IGE is used to evaluate the contractors’ proposals to ensure the U.S. government pays a fair and reasonable price for the work to be performed (see Chapters 14 and 16). Reasonable bids should be within 10 percent of the IGE.

Other Estimates and Analysis

The Office of Cost Management tracks cost trends, actual versus projected costs, and issues affecting pricing and costs, such as an increase in the global price for petroleum or steel. It also prepares:

- Site Maintenance and Development Plan (SMDP) estimates of site mitigation and development costs) (see Chapters 11 and 12);
- Rough Order of Magnitude (ROM) estimates of new programs, such as what would it cost to remove asbestos from all Department facilities, or how much would it cost to add a given element to all buildings;

Value Engineering

Public Law 104-106 and the Office of Management and Budget (OMB) Circular A-131 require value engineering studies, which provide a systematic review that aims to lower life-cycle costs while improving quality and performance. The result is an independent report with recommendations for improving value (cost and function) and verifying that the design meets program requirements without excess. It is not a scope reduction exercise. The goal of value engineering is to break down a project into parts, analyze the specific function or purpose of each part, and then identify alternative ways of satisfying each part’s function. This process determines the optimum combination of cost and quality for each required function.

OBO uses a single value engineering study on projects with construction costs of over \$5 million. For more complicated projects or those with construction costs over \$100 million, OBO uses a two-phase study, conducting a risk analysis workshop earlier in the process followed by a full study (see Chapter 14). This risk analysis broadly covers the project’s cost, schedule, procurement, permitting, and the possibility of natural disasters or other challenges to the project’s successful completion.

13. COST MANAGEMENT

OBO contracts with an independent value engineering team, generally through an Indefinite Delivery-Indefinite Quantity (IDIQ) task order, to comprehensively review the work of design or Design/Build firms. An accredited Certified Value Specialist (CVS) leads a study team of technical experts, selected based on the project's unique characteristics. The team includes architects (LEED AP®, landscape, and interior), engineers (mechanical, electrical, structural, civil, geotechnical, blast, and facilities), and a cost estimator. On rare occasions, OBO may decide that a project warrants additional in-house or private sector experts on the team.

A full value engineering study is a multi-step process that includes the following activities:

- **Information and Function Analysis**

The value engineering team gathers information from the project and design teams. At a kick-off meeting the A-E team and the OBO project team present the design and answer any questions. The value engineering team then analyzes each of the project's functions until they completely understand the project's specific use or functional requirements. For example, during function analysis, the team might look at the generators, which have a basic function to produce power.

- **Creative or Speculation Process**

The value engineering team generates alternatives for providing the requisite function(s). Continuing the example above, during this brainstorming step, the team would develop ideas for different ways to produce power, though different types of generators, renewable power, etc. The options explored must be feasible, taking into consideration the Department's existing codes, standards, and other requirements.

- **Evaluation**

The value engineering team analyzes and ranks the feasible alternatives. The team estimates the cost of each feasible alternative and determines which offers the greatest potential for life-cycle cost savings or functional improvements.

- **Development**

The value engineering team assesses the technical feasibility and develops proposals that include detailed estimates for the selected alternatives. A risk analysis identifies and analyzes project risks—such as possible procurement problems, political or security issues, natural disasters, etc.—for the purposes of managing risk and improving project value. The result is an independent report with recommendations improving value (cost and function) and verifying that the project meets program requirements without excess. The A-E can provide comments, and the value engineering team answers any questions on the recommendations.

- **Implementation**

The OBO core project team and subject matter experts review the proposed recommendations to determine which to implement based upon project scope, schedule, budget, codes, OBO standards, and other requirements.

During construction, the contractor can also initiate a Value Engineering Change Proposal (VECP); if the Department decides to accept the proposal, both the U.S. government and the contractor share in the savings.

An OBO value engineering expert conducts value engineering assessments on site during construction to review the implementation, adjust reports of the savings gained through value engineering, and gather lessons learned.

If the same value engineering recommendation appears on several projects, OBO may consider revising the Design Standards or Guidance (see Chapter 15).

CHAPTER 14

DESIGN PROCESS

PROJECT DEVELOPMENT &
EXECUTION

DESIGN PROCESS

Successful projects result from a well-integrated, multidisciplinary design process. Through a series of reviews, OBO's project team, office directors, and senior management ensure that a project is developed on time and within budget, that it will meet the needs of end users and long-term managers, and that the design quality meets OBO's standards. At each stage of the design, projects are reviewed relative to their performance on issues such as security, functionality, life-cycle costs, energy usage, and responsiveness to physical and cultural context. Management approvals at key milestones lock in decisions and keep the project moving forward. OBO facilities have an array of stakeholders; while incorporating multiple viewpoints can be a challenge, it is critical that the private-sector design team access as rich a pool of expertise as possible (see Chapter 7) and that OBO presents the A-E with clear direction throughout the process.

This chapter provides a template for a typical design process for new construction and major rehabilitation projects. The process is the same for Design/Bid/Build and Design/Build projects, with the exception that in the latter, the Design (Bridging) Architect completes the bridging documents (at between 15 and 35 percent) and the Design/Build contractor's Architect of Record then continues the process. Throughout the design process, the Project Manager ensures that budget and schedule objectives are met and oversees any changes to the scope, while the Design Manager ensures that the project meets design requirements and quality benchmarks. Both regularly communicate with the A-E team and informally review the design's progress, supplementing the formal, scheduled reviews. The Project Director/Construction Executive help to lead and coordinate constructability reviews and other information such as phasing and estimated construction schedules. Various subject matter experts, including the Office of Facility Management, ensure that the designs will be as easy as possible to maintain at the post. OBO senior management, office directors, and the post receive regular updates as the design is developed, and review it in both formal and informal settings.

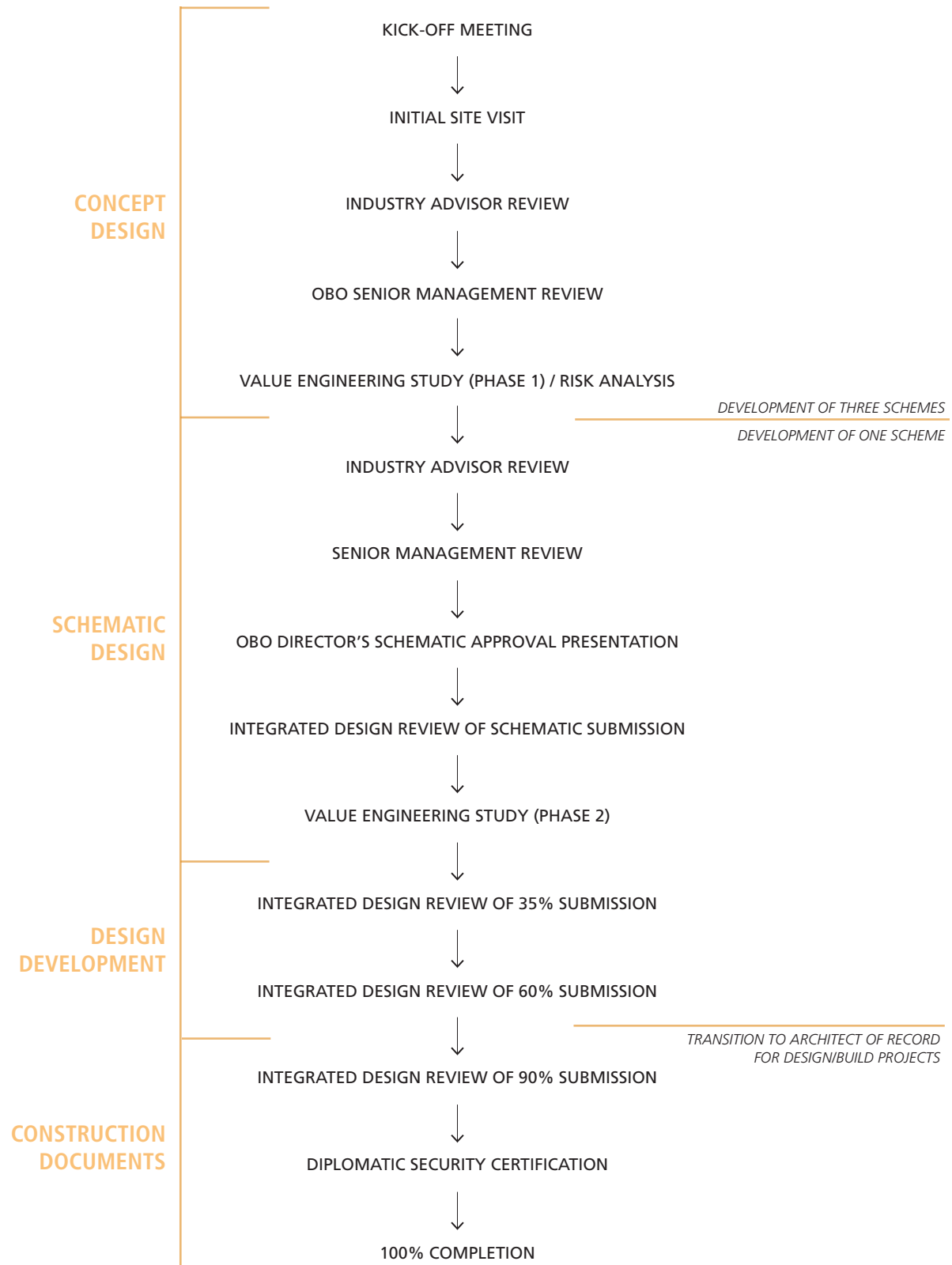
Selecting Architecture and Engineering Teams

OBO selects A-E teams through an established process that complies with Federal procurement laws and regulations, supported by the Bureau of Administration's Office of Acquisitions Management (see Chapter 7). The Department uses two principal methods to identify an A-E team for a project. For unique or specialized projects, a project-specific announcement allows OBO to select a team whose qualifications and expertise are uniquely tailored to the project at hand. Selections are made through an evaluation process that assesses the qualifications, experience, and competency of the A-E team, including the lead designer, and its subcontractors. This is done by reviewing portfolio submissions for the firm and its designers, the qualifications of the proposed multi-disciplinary teams and subcontractors, and interviews of key personnel. On occasion the Department has used a design competition to select an A-E team.

Alternatively, the Department may establish Indefinite Delivery-Indefinite Quantity (IDIQ) contracts against which individual task orders are written for specific projects. IDIQ contracts have a one-year base period and four one-year optional service periods. They expedite the selection process because the teams under contract already hold security clearances and have pre-negotiated billing rates with the Department. OBO selects teams for IDIQ contracts through an evaluation process similar to that used in project-specific solicitations.

For each solicitation, OBO convenes a Technical Evaluation Panel of experts in the fields of planning, design, construction, or government acquisitions, with the Contracting Officer's concurrence. Each member is responsible for independently evaluating and rating the qualifications of each offeror, using the evaluation criteria for each stage published in the FedBizOpps announcement. A shortlist of firms is invited to submit additional information and interview. The Panel then rates and ranks the shortlisted firms based on the written submissions and interviews. The Panel provides the OBO Director with a rank order of the top firms for approval. The Contracting Officer is notified of the proposed successful offeror and, if he/she concurs, notifies the selected team. A complete Scope of Work and a Request for Proposal follow shortly thereafter. The security clearance process is initiated at this time. After the A-E team's fee proposal is received, the Department evaluates

DESIGN PROCESS



and compares it with an Independent Government Estimate (IGE) prepared by the Office of Cost Management (see Chapter 13). Negotiations are conducted. If for any reason OBO is unable to enter into an agreement with the selected A-E team, federal procurement regulations permit OBO to terminate discussion and begin negotiating with the next highest-ranked A-E team without incurring any liability. Upon completion of negotiations, the selected A-E firm undergoes a financial audit. Once a contract is finalized, OBO provides orientation briefings, project and document management details, and other relevant information to the A-E team. OBO also notifies the post and publicly announces the selection.

Conceptual Design

Shortly after a contract is awarded, the design process begins with a kick-off meeting, ideally with the full State Department team, the A-E team, and its subcontractors (see Chapter 7). The teams review the project's goals, the terms of the contract, the Project Development Survey (PDS), and any relevant technical design criteria (see Chapter 12). (In some cases, the A-E team selected may have completed the PDS.) The A-E team and its subcontractors receive OBO's design standards as part of the scope of work.

The A-E scope of work sets the parameters of the project and the team's responsibilities. A Course of Action articulates the aspirations of the principal stakeholders, setting finite goals, and can be updated and modified over the course of the project.

The design process must incorporate a knowledge of the local climate, culture, amenities, materials, labor, technical abilities, and other regional and country-specific factors that will impact the project. The PDS contains some of this information (see Chapter 12). Early in the project's development, the principal members of the A-E team visit the post and the site with core members of the OBO team. The A-E team interviews principal stakeholders at post to get a clearer sense of their specific needs. Engaging the occupants in the design process can greatly enhance the design and the end users' efficient use of the new space. The team typically meets with local authorities to discuss planning, design, and construction approvals; any environmental issues affecting the project

site; utilities; and infrastructure. Local geotechnical engineers provide additional insight into the underlying conditions on site.

The exploration of multiple design approaches ensures that the full range of issues is properly vetted and that the optimal design solution emerges from the unique requirements of the project. Following the initial site visit, the A-E team synthesizes the technical, programmatic, and contextual information and develops three distinct and viable concepts. These must be realistic design strategies—executable, cost-effective, and fulfilling the Department's needs and requirements. The A-E team meets periodically with the OBO project team to discuss design considerations under evaluation, conformance to the project requirements, and current progress. Members of OBO senior management informally review the concepts to ensure that they are ready for more formal reviews. The formal design reviews by private sector professionals and OBO senior management ensure that all three concept options are compelling and viable, and provide direction to the A-E team on how to move forward with a single design.

The OBO core project team and the A-E principals present the concepts to a group of three or four private sector professionals that OBO selects from its Industry Advisory Group and a pool of adjunct advisors (see Chapter 6). Providing independent expertise on design and constructability, the advisors assist OBO in ensuring the projects are well-conceived and can be realized efficiently and cost-effectively. At this review, A-E teams explain the factors that influenced the development of each of the three concepts, and their respective opportunities and constraints. The advisors' discussion can include an assessment of the fit between the program and various design approaches, siting and urban design issues, major spatial and architectural features, life-cycle cost, and an evaluation of topics such as structure, sustainability, constructability, and maintenance. A member of OBO senior management moderates the discussion. The goal is not to generate an endorsement, but to have a candid, constructive design critique that helps identify the best strategies for the project. It is important to note that OBO is not asking the Industry Advisors to come to a consensus, but rather provide their own individual observations about the project.

The OBO core team and the A-E team then present the concept designs in a similar manner at the OBO senior management review, which includes Managing Directors and Office Directors (see Chapter 6). The senior management examines the concepts, and raises any concerns about issues that may influence the selection of one option, as well as any general issues affecting the project. They review and discuss many of the same topics as the industry advisors, based on their technical subject matter expertise, their familiarity with State Department operations and requirements, and their experiences with other OBO projects. As experts in each of the respective specializations, they weigh the strengths and weaknesses of the projects, assessing the viability of proposed solutions. Their goal is a cost-effective, coherent design solution that meets all of the post's requirements.

The core project team then weighs the Industry Advisors' recommendations and the positions of OBO senior management, with input from subject matter experts, and develops clear recommendations regarding the path forward for the design. OBO selects the strongest scheme, or a hybrid scheme, as the preferred direction. This is reviewed and approved by OBO management, and then conveyed to the A-E team by the Project Manager.

Schematic Design

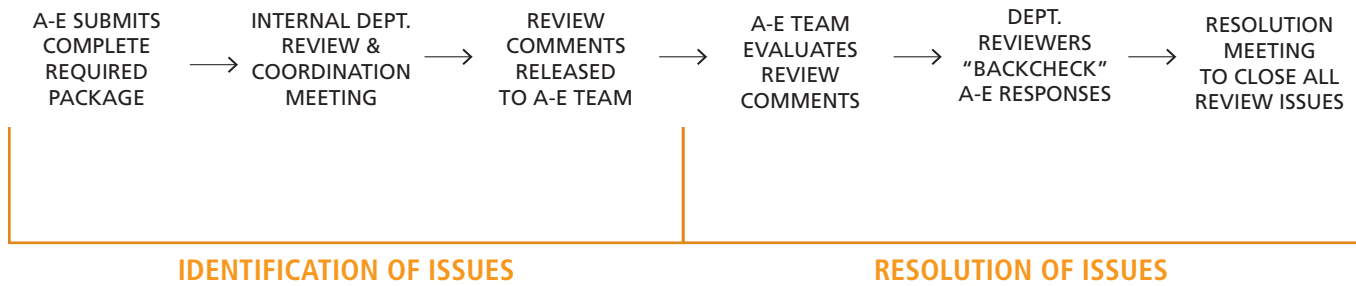
The selection of a single design proposal marks the transition from concept to schematic design. The A-E team and subcontractors refine the selected scheme to a greater level of detail, so that the architectural character of the project emerges more clearly. The Schematic Design documents are adequately developed in order to assess compliance with the requirements of the project and conformance to the project program, standard and project-specific design requirements, the approved schedule, and the estimated construction contract price. At a minimum, the presentation must address such issues as the building's context; building systems, including the incorporation of security systems; the selection and coordination of exterior and interior design elements and materials; and how the local environment and skills impact the design. Once the form, program, structure, major systems, and materials are well-developed, but not yet finalized, a second round of formal reviews is scheduled, beginning with the first value engineering study.

The value engineering/risk analysis workshop is coordinated by OBO and conducted by an independent value engineering study team led by an accredited Certified Value Specialist (CVS). The value engineering team, the core OBO project team and subject matter experts, and the A-E firm attend to ensure that the overarching project goals are fully represented. A risk analysis looks at the project's cost, schedule, procurement, and permitting, and identifies and analyzes project risks—such as possible procurement problems, natural disasters, etc.—for the purposes of managing risk and helping to control project costs.

The lead designer presents the evolution of the selected scheme at a second Industry Advisor Review, ideally with the same Industry Advisors. Like the three-concept review, the purpose is not to mandate particular solutions, but to highlight opportunities to strengthen the project, fulfill requirements, and identify areas for additional improvements. Again, the schematic design must be within budget if the review is to be beneficial. The A-E team then gives the same presentation to OBO's senior management. As with the first set of reviews, the core project team then weighs the recommendations, consults with subject matter experts, and provides clear direction to the A-E team.

The A-E team presents the scheme to the OBO Director for affirmation that the project meets OBO's standards. This presentation includes the OBO Director, senior management, other key OBO managers, and members of the project team including the Project Manager, the Design Manager, and the Construction Executive. Representatives from the post and/or the regional bureau also are invited to attend. The OBO art curator presents the art strategy for the project as well (see Chapter 15). While there are always questions and comments at this meeting, the nature of this gathering is an affirmation that a project meets OBO's standards of excellence. The expectation is that the Director will officially endorse the design so the project can move forward. However, if any of the Director's comments require further development, they must be resolved before the project advances.

14. DESIGN PROCESS

INTEGRATED DESIGN REVIEW (IDR) PROCESS

The IDR involves six primary steps: 1) Review Kick-Off Meeting, 2) Collaborative Review (review comments collected electronically), 3) Technical Coordination and Review Coordination Meeting, 4) Contractor's Response, 5) Reviewer Backcheck, and 6) Resolution Meeting.

Once the OBO Director has approved the schematic direction of a project, its subsequent development—up to and including the Final Construction Documents—must be in keeping with the approved scheme. As the project develops, deviations from the approved design's defining features must be confirmed by the Director, or his or her designee, to ensure that the project is executed as approved.

As the design develops, the numerous technical and functional requirements must be balanced to meet all of the project goals. OBO conducts Integrated Design Reviews (IDRs) at several points in the process, beginning with schematic design. The State Department's technical experts review design submittals to ensure that the A-E team meets the criteria stated within the contract. OBO's reviews focus on the A-E's compliance in three major areas: contract requirements and standards, the quality of the documentation, and adherence to the State Department's security classification guidance. In the IDR process, OBO identifies issues as an integrated team. The A-E team evaluates the comments, then OBO backchecks the A-E team's response. Any open issues are resolved at a subsequent meeting. This IDR process repeats at contractually specified points as the design develops, as described below.

Design Development

As the design progresses, the A-E team prepares a design development package that demonstrates how the design, materials, and systems will be detailed and coordinated. Drawings and other documents fix and describe the size and character of the project, and document major materials and systems and their quality level.

Prior to the submission of the 35 percent design development package, an accredited team of technical experts performs a full value engineering study. The value engineering team evaluates the project's specific functional requirements and generates alternative solutions, which it analyzes and ranks based on the greatest potential for life-cycle cost savings or functional improvements (see Chapter 13). (A Risk Analysis study is also done at this point if it has not been done previously.) The value engineering team assesses the solutions' technical feasibility and develops proposals with detailed estimates for the selected alternatives. The OBO project team and subject matter experts review the proposed recommendations to determine which to implement based upon codes, OBO standards, permit requirements, and other analyses.

Following the submission of the design development package, OBO conducts another formal Integrated Design Review.

Depending on the project delivery method, the design development documents either advance to the next level of development with the A-E team, if executed as a Design/Bid/Build project, or are issued to construction contractors as part of a Request for Proposal (RFP), in the case of Design/Build projects (see Chapter 16). For Design/Build projects, the Architect of Record then develops the design and submits drawings and specifications for the remaining design reviews, approvals, and certification.

Construction Documents and Certification

Thorough, complete construction documents are key to a successful construction project. They facilitate a smooth review and clearance process. The design intent, and its nuances and priorities, must be clear in the drawings and specifications to make it easily understandable to the construction contractor and enforceable by the Project Director (see Chapter 16). This can also decrease the number of Requests for Information during construction, reducing potential delays.

The A-E team or Design/Build team prepares a Construction Document package at 60 percent and 90 percent for OBO's approval. The packages consist of drawings and specifications setting forth in detail the design, materials, systems, and other requirements for construction. At 60 percent, unresolved, competing, or conflicting design and technical priorities are clearly identified, along with the proposed recommendations for their resolution. At 90 percent, the package should completely describe the project and be almost construction-ready. An Integrated Design Review is conducted at each submission to ensure that the OBO project team, including the technical experts, concurs with what is being put forward.

Following the last Integrated Design Review, the A-E team or Design/Build contractor incorporates its changes into the package and submits updated 90 percent Construction Documents. This submission consists of drawings stamped by a licensed professional for each discipline, diagrams, specifications, reports, calculations, product literature, and the submittal register. For Design/Bid/Build projects, these documents constitute the Final Construction Documents and are issued by OBO for bid solicitation after a "backcheck" review confirms that all Integrated Design Review comments have been incorporated.

Before undertaking any new construction or major renovation project on any facility abroad intended for the storage of classified materials or the conduct of classified activities, the Secretary of State is required by law to certify to Congress that the facility resulting from the project incorporates adequate measures for protecting classified information and national security-related activities, and adequate protection for the personnel working in the facility. The Bureau of Diplomatic Security reviews drawings and specifications for compliance with certification criteria and certifies the adequacy of the project's design and security. The Bureau of Diplomatic Security also ensures that appropriate and adequate steps have been taken to ensure the security of the construction project (see Chapter 17).

CHAPTER 15

DESIGN STANDARDS AND GOALS

PROJECT DEVELOPMENT &
EXECUTION

DESIGN STANDARDS AND GUIDANCE

Architects, designers, and engineers must balance a myriad of competing requirements and guidelines addressing security, productivity, sustainability, and other goals into a thoughtfully conceived, cohesive, and inspiring whole. Of paramount importance is that facilities comply with the State Department's codes, policies, and standards, including the Guiding Principles (see Chapter 2). OBO provides comprehensive direction to architects, designers, engineers, and construction professionals on the design of chanceries, consulates and consulates general, service and support buildings, and a range of residential building types, to ensure safe, functional, and secure facilities. OBO's codes adopt the International Building Code; however, OBO also provides specific direction on elements and issues that are unique to diplomatic and consular properties. These design requirements and guidelines apply to each project, irrespective of the delivery method. Projects must occasionally exceed Department standards to comply with local regulations.

This chapter describes how this direction is provided to contractors, and then highlights some of the State Department's design goals in various disciplines. Some of these could apply to any office building; others are tailored to meet our unique diplomatic and consular mission. These goals apply to large new embassies, but to the smallest new facilities, major rehabilitations, systems replacements, and Repair and Improvement projects (see Chapter 9).

Standards and Guidance

OBO's Design Standards focus on the criteria and requirements that must be met for each building type. Provided to architecture-engineer (A-E) and Design/Build contractors at the start of each project, the Standards include mandates—requirements that must be met for each project type. Where possible, they are performance-based, enabling design responses that are tailored to the specific conditions of a project, allowing the State Department to take advantage of industry innovation and state-of-the-art technology in areas such as security, life safety, and sustainability. Where required, the Standards are prescriptive.

The OBO Embassy Design Guide provides non-contractual design guideline information regarding aspects of design that are not regulatory or statutory requirements, but are necessary to achieve functional and effective diplomatic and consular facilities. It introduces chanceries and consulates and provides detailed information about their makeup and functional requirements. It is intended to complement the Standards, which will continue to contain requirements that must be met in State Department projects, and information about other elements of the compounds (see Chapter 4).

OBO releases new official versions of the Standards annually, based on new Overseas Security Policy Board (OSPB) standards, Lessons Learned, Post-Occupancy Evaluations, life-cycle cost analysis, value engineering studies, research and development, and other commentary. In some cases, OBO deems a given change sufficiently critical to be applied to ongoing projects.

Security

Safety and security are foremost concerns that impact every aspect of State Department facilities to varying degrees. One of OBO's key objectives is that U.S. embassies and consulates comply with stringent OSPB security requirements, while conveying an image of openness and accessibility that supports the diplomatic mission. Physical and technical security devices and systems, designed to protect personnel and classified information, must be closely coordinated throughout all phases of each project. OBO works closely with the Bureau of Diplomatic Security throughout design and construction (see Chapters 14, 15, 16, and 17). OBO works closely with the Bureau of Diplomatic Security and private sector companies on the development of new security features. State Department and private sector physical, technical, and industrial security specialists, architects, and engineers are challenged to design and develop improved methods, materials, and solutions. The overall designs should seamlessly integrate security features.

The 1999 Secure Embassy Construction and Counterterrorism Act (SECCA) specified security requirements for U.S. diplomatic and consular facilities involving co-location and setback. With the OSPB, the Bureau of Diplomatic Security develops the extensive security standards for diplomatic and consular facilities, which OBO translates into criteria and codes.

Public Law 100-204 requires the Department to certify to Congress that appropriate and adequate steps have been taken to ensure the security of construction projects, and so the Bureau of Diplomatic Security certifies and accredits new facilities and other projects as required (see Chapter 17).

OSPB security standards emphasize perimeter protection, including walls, fences, and vehicle barriers. A “tiered” defense system is utilized on all of the Department’s facilities. The first tier consists of a secure outside perimeter wall or fence with Campus Access Pavilions—officially called compound access control (CAC) facilities—that allow the post to control vehicular and pedestrian access to the compound and to screen visitors and vehicles prior to entry. The second tier is the “Clear Zone”—an area of space directly behind the outside perimeter that is void of any built obstructions, where guards can patrol and monitor the perimeter. The third tier of protection is the building exterior of “hardened” materials that provide forced entry, ballistic- and blast-resistant protection for the building occupants.

Department of State facilities are designed to resist the effects of large explosions. Professional blast consultants work to protect personnel by designing building enclosures and structural elements to keep blast effects out of occupied space and to prevent structural collapse.

Diplomatic Security and OBO collaborate on the development of new technologies to meet the Department’s security requirements. The Standards also encourage the development of security features and technologies, countermeasures, and landscapes that add to a complex’s outdoor amenities, while meeting all security requirements. This can involve incorporating constructed barriers into representational elements or hardscapes, or utilizing natural features present on the site.

Site Planning and Landscape Architecture

Site planning must accommodate the post’s functional needs, providing clear vehicular and pedestrian connections and dignified, distinct outdoor representational spaces. To meet long-term changes in foreign policy needs, buildings should be located so that a future expansion can be accommodated without compromising security or detracting from the finished facility. The buildings’ location and form should maximize a site’s features. Each embassy or consulate should respect and respond to the context of the surrounding neighborhood. This may mean a lower profile with fewer stories in a predominantly residential area, or the use of publicly accessible gardens and other measures to soften the perimeter of the complex.

The representation of the U.S. government to the host country begins with an individual’s initial impression of the embassy or consulate: how it is situated in its context, the clarity and openness of the approach, the progression from exterior to interior arrival points, and the spaces and plantings. The design of the landscape, security measures, and architecture must be carefully integrated. Landscape architects work with engineering and security specialists to select the appropriate barriers for each area, based on a determination of the local traffic pattern, and other threats and risks. Rising slopes or hills, water features, boulders, and cliffs can serve in place of, or complement, man-made physical security barriers.

The impact of natural characteristics—the wind and sun, the frequency and intensity of rain or drought—affects the landscape design and the architecture. Irrigation and stormwater management affect the long-term maintenance of the site, and protect the environment. To the extent possible, landscapes must be self-sustaining and flourish in the regional climate without significant mechanical irrigation. Native landscapes and the use of native plants can also strengthen the embassy or consulate’s connection to the region.

Architecture

The architecture of diplomatic facilities should resolve functional requirements into a thoughtful, cohesive solution—much as diplomacy itself seeks to merge distinct national interests towards a common goal. In order to best represent the United States government, the facilities must support the safe, secure, and effective conduct of diplomacy and consular operations, including public diplomacy, and the many necessary support activities at a post.

The chancery or consulate should establish the design direction for all of the surrounding support facilities. The architecture must communicate the strength and stability of the United States and the openness and transparency of our democratic government. Designs must be functionally simple, avoid ostentation, and utilize an economy of means and methods to provide long-term value. As a symbol of the bilateral relationship, the architecture should also reference or incorporate the host nation's architectural customs and traditions, such as contemporary references to vernacular architecture or local history, archaeology, and culture, or the use of materials with local significance. Each design should reflect an understanding of common local customs, local public behavior patterns, and human needs. Diplomatic buildings must be able to respond to shifting foreign policy priorities and resources and adjust as staffing levels change, the flow of visa applicants varies, and/or new initiatives are instituted.

Annex buildings should take their architectural cues from the chancery, and require many of the same technical considerations. Service elements on a compound should be thoughtfully located so as not to detract from the formal nature of the chancery and should form a cohesive part of the complex.

The Marine Security Guard Residence (MSGR) is typically included in new construction (see Chapter 4). To the extent possible, on-complex Marine Security Guard Residences should be located in a reasonably private part of the site or project. The building program comprises common living areas and individual sleeping quarters; the common spaces are intended to support the health, well-being, and morale of the Marines. The architecture and interiors should have a residential feel, while meeting

security, acoustics, and privacy needs. Special thought must also be given to shared outdoor recreation and social spaces.

All housing must meet security requirements, and in some cases will therefore be included on a diplomatic or consular compound. Staff housing guidelines in the Foreign Affairs Manual (FAM) aim to provide overseas housing that approximates, to the maximum extent possible, what occupants could reasonably afford at their salary levels in the Washington, D.C., area. On-compound staff residences should be zoned away from office and warehouse facilities. Architecturally, they should emphasize their own identity as a residence and be distinct from other structures. They should provide residents with a reasonable level of privacy and appropriate security measures based upon the threat level of the post. Where appropriate, the homes should allow for some level of representational entertaining, while still providing adequate privacy for the family. Sustainability and energy efficiency are priorities, and should be driven by the local climate.

Engineering

To support diplomatic and consular work, engineering systems must provide a safe and secure structure, critical heating and cooling, environmental security systems, a high level of indoor air quality, safe potable water, and necessary power and fuel. The systems must support the post's current activities, and be able to easily adapt to changes over time. As with other technical aspects of the project, security is a critical consideration. Emergency recovery program capabilities in response to an attack or natural disaster are also a key element, not only to keep employees and visitors safe and secure, but to provide a functioning base for American assistance in the case of natural disaster. Buildings and systems must be durable and long-lasting, and withstand local environmental conditions.

Challenges arise based on the local technology level and infrastructure, the skills of the local labor force, varying climates, the local pollution level, and other issues. Engineers must understand the level of technology of the local design and construction communities at the project's location; this can vary widely from post to post. While OBO seeks to showcase advanced American

innovation and technology around the world, designs must balance the use of advanced technologies with the need to maintain systems over the life of the building, particularly in countries where spare parts and service are not readily available. Low-intensity development and simple solutions can in some cases be the most effective and enduring over time, as well as the easiest to maintain in a challenging setting. In addition, the Department seeks to reduce its operating costs and environmental footprint through the careful design and operation of mechanical systems. Maintainability is essential in minimizing life-cycle costs.

Accurate and reliable geotechnical investigations of surface and sub-surface conditions on OBO sites provide critical information for the design. OBO's projects are conducted in highly diversified geologic and tectonic conditions. Engineers are brought in very early in the process for new construction projects and weigh in on the selection of a site with soil and foundation investigations and analyses by experienced U.S. professionals working with local consultants (see Chapter 11).

The design of the building structure must be coordinated with the recommendations in the detailed Geotechnical Investigation Report, as well as with the location of buried new or existing utilities, the building's location on the site, soil contamination, and the finished ground floor elevations, including with respect to flood levels. Structural integrity must be ensured by employing methods to mitigate progressive collapse using practical analytic methods and proven solutions that provide sufficient redundancy in the structure. OBO prohibits some structural systems that present excessive risk, exceed construction ability, or require maintenance in excess of what is practicably achieved at post due to the skill level of local labor and the availability of quality materials.

Where possible, the structural system should optimize the construction schedule. Systems that can be logically phased and constructed using conventional methods without interference between construction trades should be utilized.

The goal of civil engineering is to design a coordinated network that meets all applicable performance standards and statutory requirements when constructed. In some cases, local utilities are nonexistent or insufficient. This may require creating self-sufficient compounds that can provide their own power, fuel storage and pumping systems, drinking water, and wastewater treatment. The systems must also match the technology levels available locally to ensure that the post will be able to operate and maintain the systems appropriately over time, relying on local resources to the greatest extent possible.

Potable water treatment systems must deliver a reliable and quality-compliant supply for use within the complexes. Sewage treatment plants on site must also reliably meet OBO's requirements for effluent that will be reclaimed for non-potable usage. OBO follows current U.S. regulatory requirements for managing storm water discharge quality, flows, and volumes, unless held to a more stringent standard by local regulatory agencies. Extended topographical studies carefully map and evaluate stormwater collection and paths in the surrounding areas. OBO retains stormwater on site where possible, and where non-potable water is appropriate for irrigation.

Fuel tanks and pumping systems must deliver a reliable and high-quality supply of diesel and/or gasoline. Systems and storage tanks must be designed to meet current environmental standards and with appropriate security measures to keep the commodities safe from any attack, including fire used as a weapon.

Mechanical systems must be durable over time and withstand local rainy seasons, sandstorms, snowfall, or seismic disruptions, depending upon the particular site. They should utilize efficient energy production and energy recovery, and be designed to maximize electrical, water, and fuel savings. Due to the critical nature of the mission's operations, redundant units (chillers, pumps, etc.) may be needed to increase reliability.

Electrical systems in diplomatic and consular facilities include power, lighting, audio-visual technology, and telecommunications. Security is often a primary factor differentiating a diplomatic facility's electrical engineering needs from those of a traditional commercial office building. Reliable, secure, and functional electrical and communications systems must allow for 24-hour operations, supporting the diplomatic mission on a daily basis and in an emergency. Technological developments in communications, power acquisition, distribution, and management improve collaboration, mobility, and efficiency. Scalable electrical systems with spare capacity and capabilities can adapt as the mission's size and needs change, and can accommodate developments in information technology. The systems must also be sustainable, in order to reduce operating costs.

OBO's goal in fire protection design is to prevent the loss of life, property, and operational capability and to provide a fire-safe environment for the occupants of diplomatic and consular facilities. The specific criteria establish minimum fire protection and life safety levels, in accordance with international codes, that will provide a reasonable degree of safety from fire consistent with the use and functions of diplomatic mission buildings. All design services and equipment related to the fire and life safety systems must be sourced in the United States and installed by qualified individuals.

Interior Design

The interiors of a chancery or consulate building must comprehensively support the conduct of diplomacy—from the issuance of visas to small private meetings, from political and economic analysis to a visit by a prominent American artist or musician. Chanceries and consulates must also accommodate specialized activities, such as the processing of large numbers of visa applicants, and a variety of public events at which diplomats represent the U.S. government to the host nation, diplomatic community, business community, and the public. Elements within the chancery must be carefully arranged to support security requirements. The efficient use of space and the flow of different types of visitors through the completed facility are crucial elements in the design.

Active, functional, and state-of-the-art work, common, and representational spaces are key to a successful project. The ambassador's executive suite must convey the importance of its functions through its planning, layout, and finishes. The work areas must promote efficiency, enhance staff performance and productivity, and inspire innovation and improvement.

The building program for OBO's facilities is designed to permit adjustments to workplaces over the short and long term, and the design should implement these programmatic needs. While the spaces should not feel ad hoc or temporary, such adjustments should occur with minimal disruption, waste, and cost. The Department's overseas facilities must reduce operational costs and maximize resources, requiring smaller, more efficient building footprints. Open office planning is therefore to be used wherever practical, including within the general work area.

Consular environments should provide a comfortable, welcoming environment for applicants, without ostentation. They should accommodate the required technology, such as computerized queuing systems to call applicants in the waiting room to interview windows. Care should be given to acoustics, including the need for privacy at the interview windows.

Representational spaces should have a formal, dignified quality and accommodate a variety of events. The entry lobby and gallery—sometimes merged or adjacent to the staff cafeteria—can be used for public cultural events and other activities. Libraries, cultural centers, and exhibits are also settings for public diplomacy, which seeks to promote understanding of the United States by disseminating information about American policies and culture. Public diplomacy facilities—a multi-purpose room or an Information Resource Center with books, periodicals, and Internet access for visitors—must be flexible and welcoming, without compromising security.

Art

Like architecture, art is a means of communication that transcends linguistic barriers, and an important part of U.S. cultural diplomacy. The Office of Art in Embassies is a public-private partnership responsible for the permanent installation of original works by local and American artists at U.S. diplomatic facilities, with a focused mission of cross-cultural exchange (see Chapter 21). Its curators and registrars select or commission works to create collections that represent the best American art and distinguished works from local artists that capture the cultural context of the host country. They seek to highlight cultural ties between the United States and the host nation, and demonstrate the communal experiences of people of different countries, backgrounds, and faiths.

The works of art broaden the appreciation of diversity, encourage thought, generate discussions, and serve as platforms for continuing education and outreach.

Sustainability

Eco-diplomacy is the practice of conducting international relations by facilitating and advancing a commitment to conserving natural resources through sustainable operations and responsible environmental stewardship. OBO demonstrates the U.S. government's commitment to the planet by designing and constructing buildings and landscapes that meet energy efficiency and sustainability goals. Sustainable design reduces the use of finite resources and improves building performance and the health and comfort of occupants and visitors. It can also reduce operating costs by using less power, fuel, and water.

Working from a series of Executive Orders and Congressional mandates that apply to the U.S. government's domestic real estate, OBO developed a series of sustainability goals that we work to realize overseas. New construction projects must meet the U.S. Green Building Council's Leadership in Energy & Environmental Design (LEED®) Silver level. During project planning, OBO and its consultants determine which LEED® scorecard points are realistically achievable. For smaller projects, the lack of third-party certification does not preclude the consideration or use of sustainable design features.

OBO and its consultants develop site-specific sustainable goals and measures in response to each project's local climate, geographical setting, site, context, and culture, maximizing the U.S. government's return on investment. Many of these are highlighted in this chapter's previous sections. Where possible, designs should integrate sustainable measures indigenous to the region, improving environmental performance and strengthening respect for the host culture. The use of durable and sustainable materials, local/regional materials, items with a high recycled content, and rapidly renewable bio-based products provide long-term value and reduce the environmental and financial impact of fabricating and installing replacement material over time.

OBO also weighs the use of sustainable technologies relative to the level of expertise available to support future maintenance. Considerations include the daily activities necessary to meet an existing building's functional requirements, routine maintenance, repair of the building and systems, cleaning, care of the grounds, and all activities necessary to preserve the property's value.

CHAPTER 16

CONSTRUCTION

PROJECT DEVELOPMENT &
EXECUTION

CONSTRUCTION

OBO is committed to using the best construction practices and craftsmanship possible and adhering to its safety and security standards for all of its new construction, major rehabilitation, and smaller projects. New construction and renovation projects must be well crafted, efficiently constructed, and properly sequenced, to create safe, secure, and durable facilities. Through a series of reviews and verifications, OBO's on-site staff and Washington-based project team ensure that the project is constructed in accordance with the contract requirements, that it fulfills the needs of the end users, and that the quality of construction meets rigorous Department standards.

Every effort is made to ensure that the project stays within budget and on schedule. That said, supply and logistics challenges, political issues, security requirements, and a lack of experienced local construction personnel can complicate construction. Some of the challenges and resulting changes can be anticipated; others cannot. Resolving these issues with minimal impact to the project cost, schedule, or design quality requires expert management skills and clear communication among all of the team members (see Chapter 7).

This chapter provides an overview of the typical construction process for new construction and major rehabilitation projects. The process is similar for both project types; however, major rehabilitations may be more complicated than new construction, as they are more closely tied to the existing facility. They may require the safe accommodation of ongoing operations at the post, or the movement of post's offices to other on-compound locations or to commercial swing space. Variations between Design/Bid/Build and Design/Build projects are noted as appropriate.

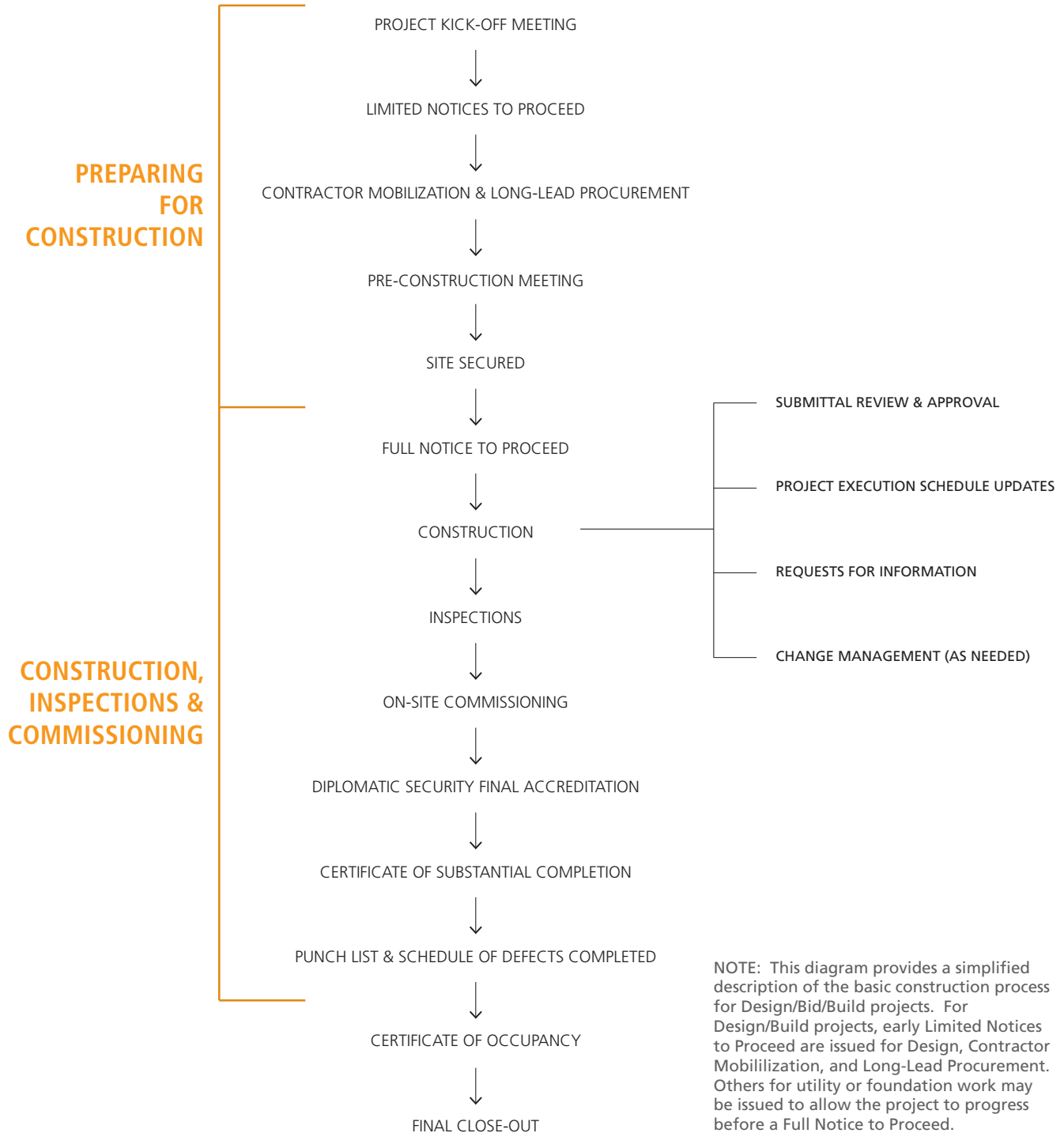
Selecting Constructon and Design/Build Contractors

As with A-E contractors, the Department uses both project-specific and IDIQ solicitations and contracts for Design/Build and construction projects. For Design/Build projects, an evaluation of the A-E team is an integral part of the process (see Chapter 14). All Design/Build and construction contracting opportunities are announced on the Federal Business Opportunities (FedBizOpps) website (see Chapter 7).

Two legislative provisions require an award to an American firm or give an American firm a price advantage. Only one or the other applies to a given project.

- Under the Omnibus Diplomatic Security and Antiterrorism Act of 1986, firms being considered for award must meet the definition of a "United States Person" as described in the Act.
- The "Percy Amendment" to the Foreign Service Buildings Act of 1926 provides a 10 percent price preference to U.S. firms on any State Department contract when the project is estimated to exceed \$5,000,000 and requires exclusion of firms from countries that exclude U.S. firms from their diplomatic construction projects.

The Department uses firm-fixed-price contracts. Recognizing that the lowest bidder may not always represent the best overall expenditure for the Department—and for American taxpayers—OBO seeks the best qualified and most capable construction contractors based on a combination of technical factors and the proposed price. Typically technical factors are given more weight, in a "best value trade-off" award process. For other projects, OBO may accept the technically acceptable offer with the lowest price. The Department's Request for Proposal for each project clearly describes the process that will be used and the priority that the Department places on price versus other factors in its evaluations.

CONSTRUCTION PROCESS

Once a project is announced, interested contractors ask to receive the Request for Proposal and other documentation. For projects requiring a clearance, they must confirm that they meet statutory qualification requirements. Contractors (referred to as “offerors”) then submit proposals for the specified work, including a proposed cost and schedule, and information about their experience, capability, and qualifications. A pre-proposal conference at the project site allows the State Department to review project performance requirements, and for the offerors to ask questions about the project’s requirements.

For each solicitation, a Technical Evaluation Panel of experts evaluates each potential contractor based on the technical criteria in the FedBizOpps announcement. The panel also has access to past performance evaluations of contractors by the State Department and other federal agencies in an interagency database described below.

In evaluating a particular construction contractor’s ability to perform on a proposed contract, financial strength is as important a factor for analysis as technical competency or any other aspect of the offeror’s operations. Financial analysis may uncover weaknesses that may jeopardize a particular contractor’s ability to perform successfully, and provide insight into other important factors such as the contractor’s current backlog, its top management’s background and reputation, and the labor skills it employs. An offeror’s volume of work determines the amount of bonding available and its financial and technical resources.

OBO’s Office of Cost Management typically evaluates the contractors’ proposals, comparing them to the Independent Government Estimate (see Chapter 13). This analysis is provided to the Contracting Officer, who evaluates and analyzes the price. For a “best value trade-off” selection, the Technical Evaluation Panel will also review and consider price proposals. The Panel reviews each submission on its own merits before making its award recommendation to the Contracting Officer, and does not compare one bid to another.

After the proposals have been evaluated, negotiations and discussions have concluded, an apparently successful contractor has been selected, and all clearances have been obtained, the Contracting Officer notifies the successful bidder. OBO then notifies the post and publicly announces the selection.

Construction Safety

In the construction environment, it is extremely important to ensure worker safety; for State Department projects, this is also a part of the diplomatic mission. OBO’s robust Occupational Safety and Health program works with the contractor to ensure the safety of the workforce. Contractors are required to comply with established safety regulations on the job site, and must submit and adhere to an approved Construction Safety Plan. The contract requirements and the Plan address safety procedures, the provision of personal protection equipment, scaffolding, fall protection, and electrical safety.

The Department’s contracts include regulations on recruitment, housing, and preventing trafficking in persons. They also include nutritional requirements for the food the contractor provides for workers in its cafeteria, and requirements for the provision of showers and restrooms for the labor force.

Preparing for Construction

After award of the contract, the construction contractor submits necessary bonds and certificates of insurance, the initial project schedule, the Construction Safety Plan, and other contractually required documents. The prime contractor typically hires a local A-E team to assist with local building permits. The contractor typically must register with the host government as a foreign business entity, and may need to comply with other local requirements.

A kick-off meeting at a convenient location brings all parties together to establish the project’s technical, contractual, administrative, and procedural requirements. The general contractor, the lead architect from the Architect of Record, the architect providing Title II services on Design/Build projects, and all core and critical Department project team members should attend.

Following the meeting, the Department issues Limited Notices to Proceed that allow various parts of the process, such as design (in Design/Build projects), long-lead procurement, contractor mobilization, or initial site work to begin.

Project Mobilization

Contractor mobilization and construction can begin almost immediately after the construction award on Design/Bid/Build projects, and 3-4 months after a Design/Build contract award. For Design/Build projects, the team may approach the project in stages, beginning with temporary construction work while the contractor's A-E of Record develops the project's construction documents. The early stages may include mobilizing on the site, beginning long-lead procurement, site preparation, excavation, and underground utility work. The second stage completes the required construction.

Regardless of the delivery method, the elements of mobilization are the same, and can take 3-6 months to complete. The contractor must establish the construction perimeter and access control facility, clear the site, and build temporary operational facilities, including the contractor's office, OBO's office, shops for fabrication, and worker facilities such as bathrooms and a cafeteria. The Bureau of Diplomatic Security ensures all of the security measures are adequate as part of its site accreditation process (see Chapter 17).

On new construction projects and major rehabilitations, OBO establishes an on-site office during the contractor's mobilization (see Chapter 7). Led by the Project Director, it remains active throughout construction. The Project Director (who is the Contracting Officer's Representative) enforces the terms of the construction contract, monitoring construction and ensuring that the contractor delivers the project on time, within budget, and to established standards of quality. The Project Director is the single OBO point of contact at post and the first point of contact for the construction contractor when questions arise. He or she also takes over leadership of the core project team. The Project Manager, Design Manager, and Construction Executive continue to support the project during construction, as do the State Department subject matter experts who provide support from Washington (see Chapters 6 and 7). The Construction Executive, working from the Office of Construction Management, is the alternate Contracting Officer's Representative and the primary point of contact for all Washington-based project matters.

A large labor force is involved in the construction of OBO's new construction and major rehabilitation projects. While some work must be done by cleared Americans, a large part of the labor force consists of local hires or third country nationals. For example, the prime contractor will often use a local subcontractor for concrete work, a labor-intensive process that is common in many countries. Alternatively, the prime contractor may opt to hire local labor or third-country nationals directly. In most cases, the labor force represents a variety of nationalities, languages, religions, and cultures. The contractor often trains the local or third-country workforce, giving them skills to use on the local economy long after our embassy or consulate is complete.

Pre-Construction Meeting and Full Notice to Proceed

Shortly after contract award, a pre-construction conference at the construction site is held to coordinate the activities of all parties involved with the project and to identify and establish procedures for the project's execution and management. Participants from OBO, the post, and the contractor review the project's objectives and schedule, identify special issues and concerns, and obtain information and clarifications on local requirements so that the work can be accomplished efficiently. For renovation projects or new construction on a current embassy compound, the meeting addresses the project's impact on the existing mission facilities, operations, employees, and visitors. For small projects, it may be as simple as a short meeting between the contractor and the Facility Manager, but it is always held to establish site access procedures, minimize disruptions to the facility, and address any other required issues.

Regardless of the delivery method, the contractor must have secured the site according to contract requirements and obtained any required local zoning/building permits before the full Notice to Proceed starts the official construction process. For projects with controlled access area space, Congressional certification must also occur before the full Notice to Proceed is issued, and all work must conform to the project's Construction Security Plan (see Chapter 17).

Construction

The construction process proceeds in accordance with an approved Project Execution Schedule, typically commencing with the foundations and building superstructure, followed by rough-ins of the mechanical, electrical, and plumbing infrastructure; exterior damp proofing and roofing; frame-out of interior spaces; and the installation of exterior doors and windows. This is followed by the installation of major mechanical, electrical, and plumbing systems; architectural finishes; and, finally, the furniture. The construction of major rehabilitation projects can be more complicated than a completely new facility. If operations continue on the existing compound, reducing the impact of the project on the ongoing operations, including limiting noise and dust, is critical.

As the project progresses, the contractor must review and update the Project Execution Schedule monthly and at key project milestone dates. The schedule is submitted to the Project Director and can be revised only with his or her approval. The contract completion date is fixed and can only be changed by a contract modification.

OBO utilizes a real-time reporting system for all overseas construction projects. Project Directors and their field staff submit weekly and monthly performance reports to OBO. The weekly reports, received and reviewed by OBO's Office of Construction Management, include pertinent contract information, project schedule and time elapsed, progress payments to date, modifications, photographs, project milestones, OBO and contractor man-hours, and current construction updates and issues. Each month, the OBO Project Director and the Site Security Manager jointly provide to OBO a summary report on the general progress of construction and site security, in the form of a formal cable (see Chapter 17). (A cable is part of the State Department's official record. The term dates from when information was transmitted by telegram.)

The contractor is responsible for controlling the quality of the construction. Before beginning construction, the contractor submits a Contractor's Quality Control Plan for OBO's approval. Quality control is defined as the means to measure, evaluate, and control the physical characteristics of the project's materials, systems, and services based on

predetermined quantitative criteria. It involves surveillance, inspection, testing, reporting, and corrective measures. Timely, consistent inspections by the contractor's staff and OBO subject matter experts, and effective quality control systems ensure that the contractor understands the standards and quickly and effectively identifies and resolves problems. OBO's Quality Assurance Program ensures a high level of quality through continuous oversight of the contractor's quality control measures.

Quality Assurance is a management process by which OBO reviews and approves the contractor's quality control plans and controls. It includes submittal review and inspections.

Technical submittals ensure that the materials that are purchased and installed are in keeping with those specified in the design documents, which include a full submittal registry. The OBO core team determines early in the process which experts need to review each submittal, including the OBO team on the project site, the Architect of Record, the Design Architect (for a Design/Build project), the OBO Design Manager, and/or OBO subject matter experts. This serves as the roadmap for the project and the basis for the design services provided by the architects during construction, described below. All of the submittals come through the Project Director's office in the field and the Construction Executive in Washington to enable them to task the project team for prompt support. Certain items, such as exterior and interior finishes, are submitted as physical samples; other submittals may be fabrications or shop drawings for elements of various systems. The on-site OBO engineering staff approve submittals that closely track with the drawings and specifications. Items that are significantly different or where the contractor proposes a substitution are coordinated with Washington experts. The core project team and subject matter experts review relevant submittals, and approve or reject them through the Project Director.

When questions arise, the contractor submits a Request for Information (RFI). The Project Director is responsible for coordinating the final response to RFIs with the Design Manager and other OBO project team members, and ensuring that OBO responds within the prescribed time frame.

At different points in the construction process, the Department of State's subject matter experts—architects, physical security experts, mechanical and electrical engineers, roofing experts, fire protection specialists, interior designers, art curators, and others—inspect the work. They conduct field visits to construction projects, report on technical features of systems installations, and witness testing of systems. They evaluate quality of workmanship, compliance with directives, authorized standards, approved plans and specifications, and other specialized requirements. The Design Manager also visits the site to ensure design integrity, material, and workmanship quality are met in accordance with the approved design. The Project Director and his staff coordinate the visits, receive inspection reports, and address any issues that arise. The Project Manager is consulted regarding any significant issues related to scope and, when appropriate, schedule and budget that arise during construction.

The inspection process builds upon the Integrated Design Reviews that occur during the design phase (see Chapter 14), and extends beyond the job site. For example, an OBO mechanical engineer will visit a manufacturer to observe specific factory tests for a major piece of equipment intended for the project to ensure all is in order before the equipment is shipped to the site. This allows problems to be resolved at the source, and not in the field.

Completing the Design Intent

Throughout the construction process, care and attention must be paid to ensure that the project is executed in accordance with the contract requirements. Given the complexity, length, and locations of OBO's projects, unforeseen conditions are unavoidable regardless of the delivery method. A review of significant decisions made in the field by those familiar with the original design intent is essential to its successful execution.

During construction, the Project Director is responsible for ensuring the continuity of the approved design, serving as the construction contractor's primary link to the design intent and quality expectations that went into the formulation of the design. The Design Manager and other members of the project team support work collaboratively with the Project Director throughout the course of construction. The Design Manager serves as a

key participant and arbiter for all design issues, including RFIs, changes, and substitutions during construction, and determines whether additional OBO subject matter experts weigh in on the issue.

On Design/Bid/Build projects, OBO customarily contracts with the project's Architect of Record for additional design services during the construction phase, referred to as "Title II services." They may, in turn, continue to subcontract firms with expertise in engineering or other disciplines for support during the construction phase. Typical services include the review and approval of submittals, responses to RFIs, and site visits and design services as needed. On Design/Build projects, the Architect of Record on the construction contractor's team fulfills these duties; however, the Design Architect responsible for the bridging document and/or design intent drawings may also be hired for Design Intent Oversight services during the Design/Build effort.

Change Management

To facilitate completion of a project on schedule and within budget, OBO strives to avoid changes to the project once construction has begun. However, due to the projects' complexity, evolving mission needs, and the unpredictable nature of foreign environments, some changes during the construction phase may be required. The Project Director, Design Manager, and appropriate OBO subject matter experts ensure that changes do not have a deleterious effect on other building elements or systems. For significant changes affecting scope, schedule, or budget, the Project Manager obtains the required approvals from within OBO, with assistance from the rest of the core project team.

If a change is deemed necessary during construction, the Department issues a Request for Proposal to the contractor, developed with the Project Director and other OBO project team members, that includes the scope of the changes and requests the contractor to submit any cost and/or schedule impacts. OBO's Office of Cost Management develops an IGE of the cost impacts of the change (see Chapter 13). The IGE is compared to the contractor's proposal, and used to negotiate the final value of the change order.

If changes are required due to field conditions, the contractor can submit a request for equitable adjustment (REA), which is processed, reviewed by the Project Director, and negotiated in a manner similar to a contract change. These are typical with firmfixed-price contracts. The contractor can also initiate a Value Engineering Change Proposal, typically early in the process (see Chapter 13).

Commissioning

In addition to the inspections by Department's subject matter experts, commissioning also ensures that the final facility meets our requirements and standards. Commissioning verifies and documents that the facility and all of its systems and assemblies are planned, designed, installed, tested, and balanced to meet the contract's requirements and function as an integrated whole. OBO engages a qualified, independent commissioning agent to assist with verifying that the systems are properly designed and that the contractor's performance meets contractual requirements. (Commissioning for a major rehabilitation project must also ensure that the new systems work with the existing systems.) This overarching coordination and quality assurance activity commences early in project design and specifications and continues through construction, systems startup and testing, warranty, project turnover, and close-out (see Chapter 18).

The contractor initiates and submits a Commissioning Execution Plan and other commissioning documents early in the construction process, with regular updates as construction progresses regarding their adherence to the plan. Between 6-12 months before the expected completion of a contract, the independent commissioning agent sends representatives to the job site to oversee the contractor's commissioning processes and witness a variety of tests on the building systems. Commissioning of all major systems must be done before the project is declared substantially complete. The independent commissioning agent issues a final report that includes commissioning test reports and other documents compiled during the process; these may be issued after substantial completion, but must be submitted prior to issuance of the Certificate of Occupancy.

The Facility Manager and staff at post are closely involved in the commissioning process, including regularly scheduled commissioning meetings with the contractor and observing commissioning start-ups and testing, to facilitate staff familiarity with the new systems and equipment (see Chapter 18). The post Facility Manager is also assisted by experts from OBO's Office of Facility Management, which coordinates the experts' involvement at each stage of the commissioning process. Through its Transition Program, the office assigns an Operations and Maintenance (O&M) Transition Coordinator to facilitate their consolidated review during the Integrated Design Review (IDR) process (see Chapter 14). He or she provides transition support, monitors warranty items, and supports Post-Occupancy Evaluations and the Lessons Learned process (see Chapter 18). In concert with the Office of Construction Management, the O&M Transition Coordinator engages subject matter experts for exterior façade, roof construction, utility power, vertical transportation, water treatment, fuel distribution, Building Automation Systems (BAS), and other specialized operation and maintenance issues during the acceptance phase of the project, for the office's final acceptance of the project turnover. The O&M Transition Coordinator recommends acceptance of operations and maintenance deliverables required by the contract specifications before processing of the Certificate of Occupancy can commence.

Three key systems do not fall under the responsibility of the contracted independent commissioning agent, and are approved by the Department's experts: fire protection and life safety systems, vertical transportation, and security systems.

OBO's Office of Fire Protection is responsible for witness testing and acceptance of fire alarm detection systems, fire suppression systems, and life safety features for new construction and major rehabilitation projects. They ensure that the required life safety measures are designed and constructed properly, including egress, smoke dampers, emergency lighting, and stairway pressurization. They are the certification authority for fire and life safety systems for building occupancy; a certificate of occupancy cannot be issued until the Office of Fire Protection has commissioned the building. They must commission these systems and features before the facility can be occupied.

OBO's Office of Facility Management's Elevator Management Program is the certification authority for all vertical transportation systems installed in Department of State overseas properties. They are responsible for Final Acceptance of vertical transportation systems, which includes validation of equipment safety, performance, and specification compliance.

Accreditation

The Bureau of Diplomatic Security must accredit the new facility or major rehabilitation. Accreditation includes a series of inspections, as well as the testing of key systems, performed by U.S. government personnel or separate U.S. government contractors (see Chapter 17). This process ensures a construction project's compliance with Overseas Security Policy Board minimum security standards, the Foreign Affairs Manual, the Construction Security Plan, and the certified design (see Chapter 14).

OBO's Office of Security Management, in conjunction with the Bureau of Diplomatic Security, is the certification authority for all security systems installed in the Department of State's overseas properties (see Chapter 17). They are responsible for the Final Acceptance of security systems, which includes validation of equipment safety, performance, and specification compliance.

Completion of Construction

A substantial completion inspection occurs when the contractor believes that the project is sufficiently complete and satisfactory, in accordance with the contract documents, to be occupied or utilized for the purpose for which it is intended. The contractor must also meet key milestones related to operations and maintenance in order to achieve substantial completion (see Chapter 18). The Project Director evaluates the suitability of the work with input from subject matter experts from OBO and the Bureau of Diplomatic Security accreditation teams, and determines if the project has reached Substantial Completion. The Project Director then prepares and issues a Certificate of Substantial Completion and the Schedule of Defects or punch list. The construction or Design/Build contractor then addresses these in a timely manner, and the Project Director promptly re-inspects the work. Substantial completion is granted when only minor items such as touch-ups, adjustments, and minor replacements or installations remain to be completed or

corrected; these should not interfere with the intended occupancy or utilization of the facility, and must be able to be completed or corrected within the timeframe required for final completion.

Substantial completion is a contractual milestone that transfers responsibility for maintenance and utilities to the Department and begins the warranty period for systems and equipment. During the warranty period, the contractor or other parties are typically responsible for fixing any problems that arise. At substantial completion the Project Director receives all deliverables from the contractor, including spare parts, Operation & Maintenance manuals, the maintenance plan, as-built drawings, and warranties, and transfers these to the Facility Manager and to OBO for the project close-out (see Chapter 18).

The contractor begins its demobilization 3-4 months before substantial completion is anticipated. It retains a limited team until substantial completion, which is also gradually downsized until the punch list is completed, typically within 60-90 days of its issuance.

In the final stages of construction, and prior to the post's move-in, the Project Director is responsible for coordination of the owner installation team's follow-on work, including security equipment, telephones, furniture, furnishings, Art in Embassies-related items and activities (see Chapters 15 and 21), and other aspects of U.S. government activities.

Final Close-Out

Once the facilities are ready for use, and OBO's Office of Fire Protection and the Bureau of Diplomatic Security respectively, have commissioned and accredited the building, the OBO Director recommends that the Under Secretary for Management issue the Certificate of Occupancy and authorize post to move into the new complex or building. With the Under Secretary's approval, OBO formally transmits the Certificate of Occupancy to post, which is then permitted to move (see Chapter 18). With the issuance of the Certificate of Occupancy, the post is then responsible for the security and utility costs associated with operation of the facility, regardless of whether they immediately occupy the facility or defer the move.

16. CONSTRUCTION

After all the items on the final punch list are completed and all work is in accordance with the contract requirements, the Project Director recommends that the Contracting Officer issue a Final Completion Certificate to the contractor. Once the project has no outstanding REAs, claims, contract modifications, outstanding taxes (VAT), or any other unresolved issues, the contractor provides a certified Contractor's Release (for the entire contract amount and all applicable modifications) along with their final payment application. The Department then makes the final payment and closes out the contract. The Project Director prepares the project final completion report, disposes of or transfers all OBO assets, terminates the temporary contracts of support staff, archives the project documents, and demobilizes the field office in accordance with OBO guidance. The construction phase ends when the Project Director closes out the site office and departs from the post after final completion and acceptance of all work under the contract.

Evaluating Contractor Performance

OBO evaluates contractor performance using the Contractor Performance Assessment Reporting System (CPARS), part of a Federally mandated interagency database. OBO assesses the contractor's quality, timeliness, security record, safety record, responsiveness, and professional conduct. Evaluations are submitted regularly during the course of the project, and at the time of substantial completion. A final evaluation follows the completion of the project. These are available to Technical Evaluation Panels if a contractor applies for subsequent OBO projects.

CHAPTER 17

SECURITY MANAGEMENT

SECURITY MANAGEMENT

A variety of programs and processes at the Department of State address the management of physical and technical security for new construction, major rehabilitation, and smaller upgrade and repair and improvement projects. Security reviews and checks are a part of the certification and accreditation process for new facilities and major rehabilitation projects. The Bureau of Diplomatic Security and OBO share the responsibility for ensuring all applicable security standards are met for each and every project.

OBO, through its Office of Security Management desk officers and specialists in Washington and Site Security Managers at the construction site, is operationally responsible for ensuring that diplomatic and consular facilities are designed, contracted, and constructed in compliance with Overseas Security Policy Board (OSPB) requirements, the Department's standard operating procedures, and Construction Security Plans (CSPs).

The Office reviews all design drawings and specifications from the various disciplines during the Integrated Design Review process to verify that they comply with security requirements (see Chapter 14). It ensures the proper protection of classified and sensitive documents, including designs, and that appropriate measures are taken during construction, so that the finished building is safe and secure.

During construction, the Site Security Manager and his or her staff are responsible for the daily management of the security aspects of the project. OBO's Washington-based team of security office desk officers and specialists perform site inspections and serve as a resource for the Site Security Managers throughout the construction duration. The desk officers and specialists report regularly on the projects to the OBO and Diplomatic Security management. Throughout the certification and accreditation processes, Diplomatic Security maintains oversight and responsibility for ensuring adherence to public law, the Construction Security Plan, and OSPB standards.

Certification

Federal law requires the Department of State to certify to Congress that appropriate and adequate steps have been taken to ensure the security of construction projects. Before undertaking any new construction or major renovation in any facility abroad intended for the storage of classified materials or the conduct of classified activities, Section 160 of Public Law 100-204 requires that the Secretary of State, after consulting with the Director of National Intelligence, shall certify to Congress that:

- Appropriate and adequate steps have been taken to ensure the security of the construction project, and that
- A plan has been put into place for the continued evaluation and maintenance of adequate security at the facility.

The Bureau of Diplomatic Security is responsible for this certification, and reviews the drawings and specifications for compliance with certification criteria (see Chapter 14). It must certify that the design of the finished facility incorporates adequate measures for protecting classified information and national security-related activities, and adequate protection for personnel working there. OBO's Office of Security Management drafts Construction Security Plans—project-specific security specifications for any new construction or major renovation in a facility abroad intended to store classified materials or conduct classified activities—and ensures compliance with P.L. 100-204 throughout the project. The CSP becomes part of the certification package that Diplomatic Security submits to Congress. Certification must be completed before a Full Notice to Proceed is issued.

Construction

OBO construction contracts include scopes of work and construction security specifications to ensure that contractors adhere to contract and legal requirements. OBO and the Bureau of Diplomatic Security provide construction security training and briefings to contractors and industry representatives so that project security specifications, procedures, and requirements are as clear as possible.

OBO funds and deploys specialized security staff to monitor and maintain the security integrity of our buildings during construction. Site Security Managers, Cleared American Guards (CAGs), and Construction Surveillance Technicians (CSTs) are trained by OBO and the Bureau of Diplomatic Security prior to their deployment at overseas construction sites, and receive recurring training and assessments throughout a project. Reporting to the Project Director, the Site Security Manager is OBO's senior security representative at a construction site and is responsible for the daily management and oversight of the full spectrum of security programs. Cleared American Guards control access to construction sites and controlled access area (CAA) spaces within the buildings. Construction Surveillance Technicians escort and monitor workers performing duties in restricted areas.

In addition to the on-site staff, OBO's Office of Security Management desk officers and technical specialists review the compliance and perform quality assurance monitoring through regular site visits and reviews of construction security.

The Bureau of Diplomatic Security conducts site visits and inspections during construction as well, as part of the accreditation process described below, and provides additional assistance and interpretation as required. Diplomatic Security and OBO management are informed of any security issues that arise during the course of a project, and Diplomatic Security determines the appropriate actions to mitigate and resolve any identified issues.

OBO's Office of Security Management manages the selection, deployment, and maintenance of temporary and permanent physical and technical security equipment used to secure construction sites and permanent facilities. This may include camera and recording systems, classified processing systems, intrusion detection systems, physical security barriers, lighting, compound access control facilities, x-ray screening, and biometric identification systems.

Accreditation

The Bureau of Diplomatic Security's accreditation process ensures a construction project's compliance with OSPB security standards, the Foreign Affairs Manual, the Construction Security Plan, and the certified design (see Chapter 14). Accreditation includes inspections and testing of key systems, such as technical and physical security systems, major mechanical and electrical systems, and certain specialized installations. U.S. government personnel or separate U.S. government contractors perform the inspections and tests. The Project Director, Site Security Manager, and Construction Executive work with the Bureau of Diplomatic Security to coordinate the arrival of the accreditation team to the project site at the appropriate time and confirm that required materials and equipment are delivered.

For a new embassy or consulate, the accreditation process typically includes several site visits; for particularly complicated projects, additional visits may occur. The first visit is at the beginning of the project, to verify that the perimeter fencing and Access Control Facility for the site and other early security measures meet all requirements. A subsequent "Phase 2" visit takes place midway through the construction effort, generally when the building is enclosed with temporary enclosures or exterior windows and doors in place, and focuses on the early stages of construction of the controlled access area space. The interim inspection process goal is to identify and correct potential security problems early in construction. The final visit occurs when the building is substantially complete, and includes a review of all security documentation. The accreditation team reviews and tests the relevant systems, and issues a report with recommendations for information, action, and final resolution. Specified items must be addressed for the facility to be accredited.

Once the Bureau of Diplomatic Security completes its final accreditation inspection and determines that all security standards have been met and the security equipment is appropriate and operational, and that any issues have been resolved, it will issue a Certificate of Substantial Compliance. The Department cannot issue a Certificate of Occupancy without this accreditation.

CHAPTER 18

PROJECT TURNOVER

PROJECT DEVELOPMENT &
EXECUTION

PROJECT TURNOVER

Occupancy of a new or newly rehabilitated embassy or consulate is a new phase in the life of a mission. A new or newly renovated facility has more advanced building systems than the original facility that it replaces, with different maintenance and operations procedures. Typically, new construction projects also include specialized Facility Management shops and storage spaces to support operations and maintenance activities. Posts must ensure the appropriate Facility Management staff is available by training existing staff on the new equipment, hiring and training additional staff, or a combination of both. All staff must be properly trained on the new systems and equipment so that they operate as designed and the warranties remain valid. To support a smooth transition, OBO provides technical assistance to the Facility Manager as construction ends and post begins to occupy new construction and major rehabilitation projects.

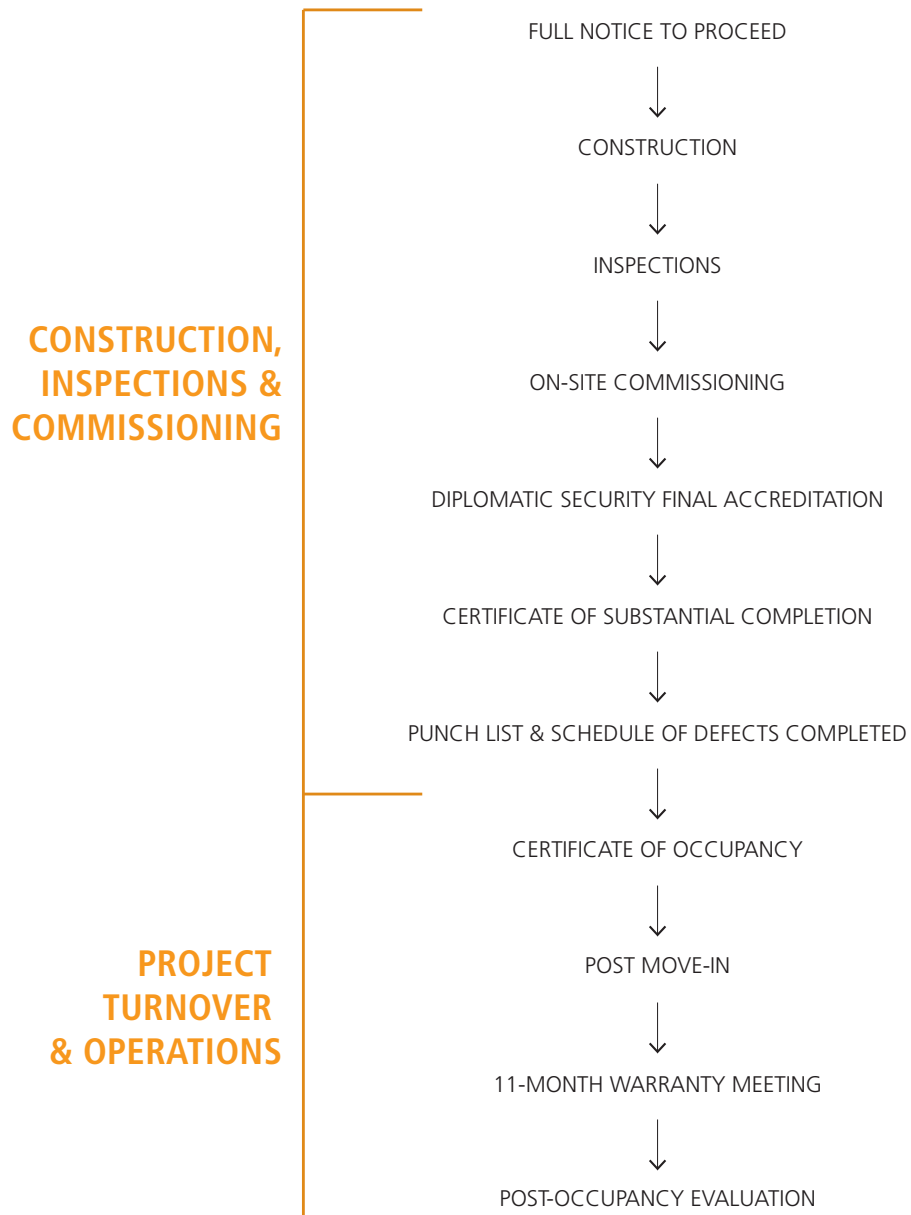
After a post has utilized the new facility for a period of time, OBO conducts various evaluations of the design and construction, to ensure that any lessons learned can influence the next generation of facilities.

Staffing New Facilities

OBO provides posts receiving new facilities with a Staffing Recommendations for Post Facility Management Report, based on a study of current staffing and building systems, and future operations and maintenance requirements anticipated for the new or renovated facility. The staffing recommendation serves as an early planning tool and provides guidance on existing and future Facility Management personnel required to operate and maintain the new facility. It also provides a benchmark for the post, listing the appropriate technically skilled Facility Management locally employed (LE) personnel corresponding to the complexity of the new systems and equipment. In cases where there may be a lack of qualified local applicants, according to market research done by the post, the recommendations provide guidance concerning the need for Third Country Nationals and third-party contractors.

While OBO makes staffing recommendations, decisions and funding for hiring staff are the responsibility of the International Cooperative Administrative Support Services (ICASS) program. OBO advises that posts fill all of the recommended positions at least 6 months before the project reaches substantial completion, so that the new staff can participate in the contractor's required training sessions and witness the startup and functional testing of the new systems and equipment.

OBO is beginning a program to provide an On-Site Transition Coordinator, starting about 6-9 months before substantial completion, and continuing through the 11-month warranty inspection. The purpose is to relieve the Facility Manager of transition responsibilities as he or she works to maintain existing office facilities and residences. The On-Site Transition Coordinator's primary duties will include working with post to fill the recommended Facility Management positions, working with post's procurement staff to set up the equipment and system service (Building Maintenance Expense) contracts, and monitoring equipment and system startup and commissioning. He or she will work closely with the Project Director, Facility Manager, the independent commissioning agent, and the contractor's warranty management agent through the warranty period. He or she will also work closely with the Operations and Maintenance Transition Coordinator in OBO to purchase diagnostic equipment, specialized tools, and spare parts (see Chapter 16). The On-Site Transition Coordinator will ensure the Facility Management staff receives the required contractor-provided training and will assist in developing an appropriate ongoing training program.

PROJECT TURNOVER PROCESS

Training Facility Management on New Systems

Facility Management personnel must have sufficient skills and knowledge to maintain the new mission-critical equipment and building systems, including the following elements:

- Air handler system,
- Building process controls,
- Chilled water system,
- Building automation system (BAS), and
- Standard and emergency power systems.

Contractor-provided training is typically conducted in person to provide hands-on experience with the new equipment at specific facilities. Typically, there is an average of 20-30 sessions ranging from generators to chillers. The Project Director coordinates with the Facility Manager to ensure that the appropriate staff is available for this contract-required training, and ensures the contractor has conducted the operations and maintenance training for new and renovated systems as part of the milestones required for substantial completion (see Chapter 16). OBO also encourages posts to have the appropriate Facility Management staff observe construction at various stages to become as familiar as possible with the new systems.

The Facility Manager and his/her staff, along with both the Operations and Maintenance and On-site Transition Coordinators, are involved in the commissioning process (see Chapter 16). OBO contracts with its Commissioning Authority to assess the skills of local Facility Management personnel, and to provide additional essential on-site system training.

OBO personnel also provide specialized installation, repair, and maintenance training to post personnel and project staff on forced entry and ballistic-resistant door systems, helping to ensure that these security features are properly installed and maintained.

The project budget includes initial operations and maintenance funds (0.5% of the construction contract) that are provided to the post during construction and through the warranty phase. These funds are for the Facility Manager to use to provide additional training for staff and to purchase recommended spare parts not

provided by the contractor, as well as other diagnostic test equipment and specialty tools necessary to facilitate the operation of the new complex.

Post Move-In

The process of turning over a completed facility to post begins during the construction phase and continues after the post occupies its new space. OBO works closely with the post management, including its Facility Management team, and the construction contractor to facilitate a smooth transition. Throughout construction, the Project Director regularly briefs post management and works with the Facility Manager to ensure that the Facility Management personnel are prepared to operate and maintain the new facility. As the construction nears its end, the Project Director re-briefs post management on the new facility and provides escorted tours for all of its occupants and staff. This allows post to become familiar with the space and makes the move-in process as smooth as possible.

Post is permitted to move once a Certificate of Occupancy is issued (see Chapter 16). Once the move is complete, the post works with OBO's Directorate of Planning and Real Estate to decommission and dispose of the facilities that are no longer needed.

Initial Operations and Warranty Period

Substantial completion is a contractual milestone that transfers responsibility for maintenance and utilities to the Department and begins the warranty period for systems and equipment. Inspections and routine and preventative maintenance are necessary to ensure that the new systems continue to operate correctly and to ensure warranty enforcement. The project's substantial completion date requires the post to begin the preventative maintenance of the installed equipment and systems at the site through a combination of Facility Management staff and qualified maintenance service providers. These operations and maintenance actions, managed through a computerized maintenance management system, are required to ensure that manufacturer and contractor warranties remain in effect and that the equipment and systems perform efficiently and effectively as designed. Warranties are tracked and claims are validated by the post.

An 11-Month Warranty Inspection is conducted to ensure that the systems and equipment are operating as intended. The Project Director (or the Construction Executive), Facility Manager, commissioning authority, Operations & Maintenance Transition Coordinator, and other assigned individuals participate in the inspections at site. The team evaluates all outstanding warranty issues and documents any additional issues during visual inspections. The team also evaluates the operational and maintenance methodologies of the Facility Management locally employed staff to reinforce proper practices and identify areas where additional training may be required. Upon completion of the inspections, OBO provides assistance and technical expertise in documenting and planning for the resolution of any outstanding warranty issues.

Post-Occupancy Evaluations and Lessons Learned

All Federal investments need quantifiable outputs and outcomes. The evaluations of programs, processes, and completed projects should focus on objective, quantifiable information, rather than the personal preferences of individual end users or participants. OBO has developed various internal methods for evaluating projects—architect-engineer (A-E) team evaluations, Value Engineering Assessments, quality assurance procedures, Post-Occupancy Evaluations—and cataloging lessons learned. OBO's Industry Advisory Group also examines existing procedures to help the Bureau improve our processes (see Chapter 6).

Approximately 12 to 18 months after post occupies a new facility, OBO sends a small team of in-house professionals to conduct a Post-Occupancy Evaluation of the completed facility. The contract documents, including the scope of work, are used as benchmarks for evaluating qualitative and quantitative aspects of the project. The purpose of the Post-Occupancy Evaluation is to determine any lessons that should be repeated or avoided in future projects and to address any items that are underperforming at the new facility. The findings are incorporated into OBO's design standards and guidance (see Chapter 15).

OBO plans to require more data analysis as part of the Post-Occupancy Evaluation process so that the performance of various building systems is more closely tracked. This will enable better estimating of projected life-cycle costs on future projects and verify whether or not the installed systems are meeting their projected performance metrics. With a shift to performance-based design, OBO will utilize measurable standards and established facility performance evaluations to evaluate the performance of completed buildings against stated goals for energy use, effectiveness, and other factors.

Given OBO's diverse portfolio and critical mission, it is important to review, assess, and incorporate lessons from all available evaluations. A committee of representatives from four directorates—Planning and Real Estate; Program Development, Coordination and Support; Construction, Facility and Security Management; and Operations—make up a board that reviews the various evaluations of OBO projects and determines how best to modify existing standards or processes to incorporate new findings. This "Lessons Learned" feedback helps to create an ever-stronger culture of excellence. Findings can come from post-project evaluations; input from team members—for example, at an annual conference of Project Directors, or individually; discussions with private sector partners; construction bulletins and facility management alerts; value engineering analyses; Office of Inspector General (OIG) inspections; and other sources.

LONG-TERM OPERATIONS





CHAPTER 19

FACILITY MANAGEMENT

LONG-TERM OPERATIONS

FACILITY MANAGEMENT

Over the last 20 years, OBO's Facility Management has evolved along with the industry, from a day-to-day tactical and technical operation into a long-range, systematic process that more strategically combines facility management, personnel management, and engineering. This proactive approach results in buildings and infrastructure that are more efficient, reliable, cost-effective, and sustainable over their life cycle. OBO is developing project and portfolio life-cycle cost assessment procedures to account for the recurring operating and maintenance costs over the estimated 50-year life of embassies and consulates. This more contemporary approach to management and operations also acknowledges budget constraints, the increasing cost of providing and maintaining services, and technological developments that have made facilities more complex.

Facility Managers and OBO's Office of Facility Management provide important input during the design process to ensure that new construction and major rehabilitation projects are maintainable and sustainable over their life cycle (see Chapter 14).

Facility Managers, supported by a staff, are responsible for life safety issues and managing the daily operations, maintenance, and repair of embassies and consulates. OBO funds a variety of activities and projects associated with the management and operations of posts (see Chapter 5). However, the State Department and tenant agencies at posts provide funding through the International Cooperative Administrative Support Services (ICASS) mechanism for facility staffing and operational expenses such as utilities, salaries of technicians, tools, training, and expendable supplies. Costs are shared based on each agency's proportion of the square meters of floor space they occupy in the facility.

Facility Management at Posts

The overall operations and management of U.S. diplomatic and consular facilities follow standard OBO policies and procedures. OBO delegates its authority to the chief of mission, who is responsible for implementing policies and procedures related to the real property program. The chief of mission in turn delegates daily responsibilities to the Management Counselor (or designee) at post. He or she is the post authority on all

real property program issues and the liaison with OBO on all real property management matters, and is responsible for managing the post or mission's housing program.

OBO funds and provides a Facility Manager, either at post or at a nearby regional location, to support and report to the Management Counselor/Officer as a member of the management team. He or she oversees a large number of primarily local staff who work in a variety of disciplines. The Facility Manager is responsible for life safety issues and managing the operations, maintenance, repair, and improvement of the U.S. government-owned properties. He/she has similar responsibilities for leased properties, focusing on life safety issues, and manages repairs and maintenance of leased properties when the landlord fails to do so. A Facility Manager may be responsible for facilities in one city or multiple cities, sometimes in multiple countries.

The program draws from a pool of U.S. direct hire Foreign Service Facility Management Specialists who rotate regularly to different diplomatic missions every 2-3 years (in the same manner as other Foreign Service Officers). At a few of the smallest posts, OBO funds locally employed Facility Managers. OBO also manages a temporary duty program of experienced Facility Managers who support occasional vacancies, fill the gaps between rotations, "rove" to support posts that do not have their own Facility Manager positions, and meet extraordinary requirements in the regular program.

Two regional facility management support offices are located in Frankfurt, Germany and Fort Lauderdale, Florida. The offices are staffed by experienced Foreign Service Regional Facility Management Advisers (RFMA). The RFMA support office in Frankfurt provides advice and guidance to posts in Europe and Africa, and the office in Fort Lauderdale provides advice and guidance to posts in the Western Hemisphere and East Asia and Pacific regions (see Chapter 6). RFMA support outside of the primary region can be engaged on a case-by-case basis; however, expansion of the RFMA program is planned to cover all posts worldwide.

Facility Managers are highly proficient, with extensive general experience and expertise in one or more of the disciplines of engineering, architecture, or facility management. They also have deep knowledge and experience working with modern building systems. Each Facility Manager:

- Leads and directs the post's facility management section, consistent with established service level agreements, budgets, and post's priorities;
- Manages the development of the annual facility condition surveys, inspection summary and preventive maintenance and work plans;
- Identifies optimum workforce staffing by evaluating preventive and predictive maintenance requirements, work order volume, and locally employed staff capabilities;
- Identifies and addresses staff training and education needs;
- Determines and prioritizes operating and maintenance requirements, forecasts material and manpower needs, and organizes and directs program resources;
- Supervises and directs facilities' operating activities and building maintenance and repair, including in-house operations and outsourced services such as electrical; heating, ventilation and air-conditioning (HVAC); plumbing; water and sewage treatment; emergency power generation equipment; and elevator service;
- Maintains accountability for and provides direction and expertise for needed corrective actions when complex equipment (such as water treatment, electrical, power generation equipment, heating, and cooling plants) malfunctions;
- Identifies, scopes, costs, and requests potential Repair and Improvement projects for OBO (see Chapter 9);
- Schedules, contracts for, and otherwise manages post-managed Repair and Improvement projects, with technical support from OBO as needed;

- Identifies requirements and prepares initial plans for physical plant alterations and improvements to accommodate increased or changing energy consumption patterns;
- Evaluates the facilities program's effectiveness through inspections, budget controls, and management improvement studies; and
- Serves as Post Occupational Safety and Health Officer (OSHO) (typically).

The Facility Manager supervises a relatively large and diverse group of personnel with varying degrees of skills and academic credentials. The staff may include engineers, architects, administrative staff, skilled technicians, janitors, gardeners, and laborers. In most cases, they are Locally Employed (LE) staff—either host country citizens, U.S. citizens who are legal residents of the host country, or third country nationals. At a few posts, the Department contracts with a cleared American workforce to supplement the local staff.

Training

Training programs for Facility Managers and their staff ensure the management, technical proficiency, and skills needed to remain ahead of changes in the facility management and construction industry. It is crucial that the Facility Manager be familiar with unique design conditions, new technologies, changing operations and maintenance standards, and improved strategic and facility management techniques. Facility Management personnel—including engineers, architects, inspectors, administrative staff, and maintenance technicians—must be adequately skilled and trained, and have sufficient knowledge to support the facility's mission-critical equipment and building systems, and the mission's needs.

Each post determines and funds the appropriate training for LE staff, augmented to some extent by OBO-provided training during support visits. OBO works with posts and regional bureaus to improve this training, to help compensate for any limitations due to funding, language, or technical barriers.

Maintenance Approach

Reliability centered maintenance (RCM) is OBO's operations and maintenance methodology. It emphasizes a focused preventive maintenance program for equipment critical to the mission, its safety, and efficient operating costs. Scheduled preventive maintenance for equipment and systems is based on manufacturer recommendations and industry standards aimed at preventing premature equipment breakdowns and failures. These tasks are customized to each post's unique needs using evaluations of equipment condition, potential breakdowns and downtimes, and the resources required to maintain the equipment. The goal is to find the correct combination of preventive and reactive maintenance, balancing reliability and cost-effectiveness. These preventative maintenance tasks are performed by LE Facility Management maintenance personnel and or in conjunction with certified manufacturer service providers. OBO manages a Building Maintenance Expenses (BME) program to fund preventive maintenance contracts for critical equipment at functional government-owned and some leased facilities.

Preventive and routine maintenance is managed and scheduled using a computerized maintenance management system that contains the following information:

- Equipment data and details (manufacturer's data, model number, size/capacity, warranty, parts, etc.);
- The total cost of maintaining properties, equipment, and facility systems; and
- A record of work to be or already performed.

Facility Management OBO Support Programs

The Facility Manager at each post relies on a combination of post, OBO, Department, and interagency resources. OBO provides posts with funding to perform routine maintenance and conduct necessary repairs of government-owned and some leased facilities, and to oversee small-scale improvement projects (see Chapter 6). OBO's multidisciplinary subject matter experts serve as a resource to support Facility Management operations (see Chapter 5).

A variety of programs within the Office of Facility Management provide specialized support and expertise. All provide general services such as:

- Condition assessments and surveys;
- Assistance with planning, analysis, scopes of work, procurement, and schedule and cost estimates;
- Development of technical drawings and specifications for design or repairs;
- Project management support;
- Construction administration and on-site quality assurance inspections; and
- Assistance with preventative maintenance planning and execution, as well as resolving more difficult ongoing maintenance issues.

The Facility Project Support Program primarily provides Design/Build services, engineering management, technical expertise, and cleared American labor to modify, renovate, and repair spaces and building systems, principally for controlled access area (CAA) spaces. The program can also assist with space planning and layout, manage construction, and coordinate with tenant agencies as required.

The Roof Management program manages all roof and exterior waterproofing components by providing administrative and technical support to post and other OBO offices through roof investigations, preventive maintenance, material procurement, repair methods, and subsequent repairs or replacements. The program can also provide material life-cycle predictions to assist in long-term planning.

The Elevator Management Program provides policy, procedures, and support to ensure all vertical transportation equipment serving overseas missions is safe and reliable. In addition to the general assistance described above, the program supports maintenance assessments and routine inspections of elevator and escalator systems and provides assistance with maintenance, design, and construction contracts.

The HAZMAT/Environmental Services Program's mission is to eliminate or minimize the possibility of exposure of building occupants to hazardous materials contained within and/or on overseas buildings and properties. It provides engineering or specialized surveys, and designs remediation and treatment for issues including asbestos, indoor air quality, and underground storage tank requirements, among others.

In addition to work on new construction (see Chapter 17), OBO's Office of Security Management also supports posts with ongoing maintenance and repairs. The Compound Security Upgrade Program funds Regional Security Technicians (RSTs) trained in forced-entry ballistic-resistant (FE/BR) door and window repair and maintenance to provide an intermediate level of maintenance expertise for these important, maintenance-intensive security features. These RSTs are deployed at regional engineering service centers and offices around the world, providing second-level maintenance and repair capability without having to send personnel from the United States.

The Utility Management Program primarily provides engineering and technical services to post, with the aim of ensuring cost-effective, reliable, and maintainable building operations and utilities. The program's services and products include:

- Engineering assistance and project surveys;
- Utility rate and metering surveys;
- Central and residential generators;
- Power conditioning and quality, including automatic voltage regulation (AVR) and uninterruptible power supply (UPS);
- Operations and utility improvements, including the installation of on-site generation or renewable energy; and
- Assistance with medium voltage systems.

OBO also provides reference and training information for posts on our website, covering topics ranging from asbestos and lead paint control and abatement, to potable and HVAC water quality and treatment, underground storage tanks, building automation systems, elevators, generators, the computerized maintenance management system, and emergency preparedness. OBO offers online sustainability information and resources including building certifications; energy, water, and utility management publications such as the *Green Guide*; and technical briefings. OBO provides maintenance staffing studies and sample position descriptions for locally employed maintenance staff.

Post-Managed Repair and Improvement Projects

All posts are responsible for submitting requests for Repair and Improvement projects as soon as a need is identified (see Chapter 9). These projects are managed either by the appropriate subject matter experts in OBO or at post by the Facility Manager and his or her staff, depending on the project's cost and complexity, the skill level of local staff and contractors, and the amount of time it will take to manage the project. For OBO-managed projects, OBO works closely with the Facility Manager to minimize disruption to post's operations and to ensure that those involved have all of the relevant information regarding local conditions. For post-managed projects, the Department allots funds to the post, which is then responsible for managing the project's design and/or construction, with technical assistance from OBO, as needed.

Post-managed projects are reviewed and approved by the operating offices in OBO and as needed by the Bureaus of Diplomatic Security (DS) and Information Resource Management (IRM). Subject matter experts in OBO's Offices of Facility Management, Security Management, and Design and Engineering can assist post. Certain projects require an OBO building permit to ensure compliance with all applicable codes and regulations. OBO provides technical assistance to posts in developing a project's scope of work, an acquisition plan if the cost exceeds a post's contract warrant, and alternative scopes with cost estimates. The Office of Cost Management reviews or provides cost estimates to ensure that all potential costs are identified and budgeted (see Chapter 13). Either post or the Office

of Logistics Management (A/LM) in Washington can initiate the contract, depending upon the project. The Office of Logistics Management must handle Design/Build contracts. The Facility Manager can serve as the Contracting Officer's Representative or Government Technical Monitor on these contracts.

OBO reviews designs and assists in specification development. During construction, OBO subject matter experts attend pre-bid and pre-construction conferences, serve as a Contracting Officer's Representative or Quality Assurance inspector, assist in responding to Requests for Information, and review change orders and contractor invoices. OBO can also coordinate systems commissioning for the project.

Evaluating Building Performance

OBO uses several methods to evaluate the anticipated performance of building systems against their actual performance once installed. Internationally recognized benchmarking systems such as the U.S. Environmental Protection Agency's (EPA) Energy Star program and ASHRAE's Building Energy Quotient (bEQ) offer universal methods to establish and reaffirm building performance. The use of third-party verification and certification sets standards for best practices and thresholds for performance, allowing accurate and comparable results.

OBO's Utility Management, Analysis, and Reporting tool, TREES, tracks building energy and water use and cost over time. TREES allows for data integration with other Departmental databases and accounts for a range of less common utility types, including trucked water, bio-diesel, and heating fuels. The system also utilizes worldwide greenhouse gas factors for electricity generation and other energy types. Posts must submit data for all buildings over 464 square meters (5,000 square feet) in size and are encouraged to report on smaller buildings where the information is available. OBO uses the data to prioritize the schedule for detailed energy and water audits and projects. OBO's Energy and Sustainable Design Unit provides posts with on-line training modules for TREES. OBO is working with the Departments' Bureau of Administration (A) and the Office of Management Policy, Rightsizing, and Innovation (M/PRI) to advance metering systems to automate readings and transmit them in real time to

Washington. This project, titled MeterNet, is in a pilot phase and, if successful, will relieve post from manual data entry in many locations.

Facility Assessments

OBO develops tools, procedures, and policies for strategic facility management, including regular assessments such as the Facility Condition Index (FCI), the Facility Condition Assessment Survey (FCAS), and the Facility Management Assessment and Assistance Program (FMA&A).

The Facility Condition Index—the ratio of repair needs to current replacement value—is used to provide a benchmark to compare the relative condition of a group of facilities and is tracked over time to maximize its benefit. To calculate the FCI, a Facility Manager provides OBO with the age of major building systems using the UNIFORMAT classification system for computing annual repair needs. The Office of Cost Management calculates the current replacement value using actual costs of constructing new facilities.

The Facility Condition Assessment Survey (FCAS) addresses the condition of most major building components and systems, including architectural, structural, civil, mechanical, electrical, life safety, and fire protection systems, as well as environmental health and building accessibility. Its purpose is to provide consistent, repeatable, and auditable physical and operational condition assessments; validate the FCI on record; and identify and prioritize existing deficiencies. The deficiency list and facility condition index generated by the FCAS provide key indicators to determine the level of stewardship of the Department's facilities. The utility information collected is critical for performing life-cycle cost analysis of alternative systems.

The Facility Management Assessment and Assistance Program is a structured assessment of the processes performed by a Facility Manager and his/her staff to maintain the facilities for which they are responsible, with support from OBO.

Fire Protection and Safety, Health and Environmental Management

The Facility Manager typically serves as the Post Occupational and Health Officer, and as a Fire Marshal, supported by subject matter experts in Washington (see Chapter 20). As the POSHO, the Facility Manager manages the post's Safety Health and Environmental Management (SHEM) program. He or she reports and investigates mishaps; annually inspects offices, warehouses, workshops, and residences; inspects and certifies new additions to the housing pool; follows up and resolves noted deficiencies from inspections; and educates the post community. In addition to workers' occupational safety and health, the program includes motor vehicle safety, residential safety for Department families, recreational safety including swimming pool safety, integrated pest management, indoor air quality, drinking water safety, environmental management of fuel tanks and hazardous wastes, and other issues. As Fire Marshal, the Facility Manager ensures fire and life safety risks are mitigated and that fire detection and suppression systems are kept operational within their span of control. They also oversee fire extinguisher and residential smoke alarm programs for their assigned mission (see Chapter 20).

CHAPTER 20

FIRE PROTECTION AND SAFETY, HEALTH, AND ENVIRONMENTAL MANAGEMENT

FIRE PROTECTION AND SAFETY, HEALTH, AND ENVIRONMENTAL MANAGEMENT

The safe operation of our embassies and consulates is a priority for OBO during day-to-day activities and during projects to repair or improve our facilities. OBO works to ensure the health and safety of all Department of State employees, tenant agencies' employees, overseas family members, and visitors. OBO experts in fire protection, safety, health, and environmental management work closely with posts worldwide to reduce risks associated with working and living environments.

Fire Protection and Safety

OBO's goal in fire protection is to prevent the loss of life, property, and operational capability, and to provide a fire-safe environment for the occupants of diplomatic and consular facilities. The Office of Fire Protection oversees the fire detection and suppression systems at State Department facilities abroad, trains personnel on fire safety, provides fire and life safety analysis of real property, and investigates any fires that do occur.

The Office provides engineering expertise in fire protection and develops fire protection criteria, standards, and policies for overseas missions (see Chapter 15). The staff evaluates new fire protection systems and life safety methods for application in the Department of State's facilities abroad.

For new construction and major rehabilitation projects, the Office of Fire Protection is responsible for witness testing and acceptance of fire alarm detection systems, fire suppression systems, and life safety features (see Chapter 16). A Certificate of Occupancy cannot be issued until the Office of Fire Protection ensures all fire systems and life safety features meet established codes and standards.

To support daily operations, the Office of Fire Protection inspects overseas facilities every 2 years. They provide training in fire prevention and hands-on extinguisher use for all personnel assigned at each Embassy and Consulate during these inspection visits. The Office conducts training in fire prevention, hands-on fire extinguisher use, disaster response, and "Fire as a Weapon" as part of a broader counter-terrorism course.

Foreign Service Officers, Marine Security Guards, and family members are trained domestically at the Foreign Service Institute, Quantico Marine Base, and at Diplomatic Security Training Centers. OBO also provides hands-on training for fire protection systems operation and maintenance to Facility Managers and locally employed staff upon request.

OBO manages a dedicated fire protection system rehabilitation program, providing essential life safety features. The Office manages several Repair and Improvement projects each year to upgrade fire alarm detection systems in occupied buildings (see Chapters 9 and 19). All design services and equipment related to fire and life safety systems must be sourced in the United States and installed by qualified firms and individuals.

As part of the Building Maintenance Expenses (BME) program, the Office oversees contractors who perform annual testing and conduct preventive maintenance of installed fire protection systems. Under a separate program, the Office sends an estimated 4,500 fire extinguishers a year to posts around the world, for use in offices and staff housing, and another 30,000 residential smoke alarms for occupants in assigned housing. In coordination with the Bureau of Diplomatic Security, the Office of Fire Protection is a key player in the distribution of Emergency Escape Breathing Devices (EEBDs) smoke hoods for use in high threat/high risk missions.

The Office investigates fires at Department facilities abroad and tracks fire report data in order to mitigate trends. The Office also develops, maintains, and executes OBO's Disaster Response Plan, which it updates quarterly.

Safety, Health, and Environmental Management

For the construction of new facilities, the Office is involved in evaluating any environmental remediation needs for proposed sites, their design and construction, and transition to post operation (see Chapters 11, 14, 16, and 18). It concentrates on potential hazards associated with building operations and maintenance and additional safeguards that the post will need to implement prior to assuming occupancy. For example, generators or other equipment should not be placed in confined spaces that can make them difficult to access

safely for maintenance. Warehouses should operate effectively and safely, with room for the appropriate materials handling equipment to maneuver. Most compounds include maintenance shops that must be properly ventilated. Finally, every occupant benefits from good ergonomic design—design that fits the person. The Post Occupational Safety and Health Officer is also involved in assuming operation of new facilities. After a project is completed and post has occupied the building for an initial period, SHEM works with the Post-Occupancy Evaluation team and contributes findings to Lessons Learned (see Chapter 18).

For renovation and smaller construction projects managed by posts, the Safety, Health and Environmental Management Office works with post management to ensure construction safety and the protection of nearby building occupants (see Chapters 9 and 19). This Office develops training programs in conjunction with the Office of Construction Management to assist posts' staff with projects (see Chapter 16).

OBO develops, reviews, and implements programs to protect personnel from safety, health, and environmental risks associated with overseas working and living environments, and to reduce the impact of our operations on the local environment. The Office of Safety, Health and Environmental Management manages programs including electrical safety, fall protection, drinking water safety, motor vehicle safety, residential safety, and recreational safety. These programs protect the State Department's overseas employees, other agency employees under chief of mission authority, and overseas family members supported by the Department. The Office also ensures the implementation of applicable Department, Occupational Safety and Health Administration, and Environmental Protection Agency requirements at the Department's functional and residential facilities abroad. The Office works with posts to investigate fatalities or serious injuries due to accidents, and recommends policy changes where needed. OBO prioritizes worker health and safety according to risk, primarily based on mishap experiences and hazard analyses.

A Post Occupational Safety and Health Officer (POSHO) at each post, typically the Facility Manager, and often with a local assistant, works closely with OBO to implement safety, health, and environmental management into post operations (see Chapter 19). OBO specialists travel regularly to posts to assess needs; provide safety training; advise on implementation; assess and track their compliance with safety, health, and environmental requirements; and investigate and resolve concerns. OBO subject matter experts also provide support from Washington on a multitude of issues that arise at various posts.

OBO provides training in the areas of safety, occupational health, and environmental protection to posts managers, employees, and Post Occupational Safety and Health Officers. Training through the Foreign Service Institute, on-site, and on-line, increases awareness of best practices and safety procedures. Technical support is available to posts on-line and from OBO experts.

The Office makes periodic scheduled inspections of all facilities to help ensure health and safety, focusing on such high-risk issues as slips and falls, and electrical safety. For example, electrical work may only be conducted when circuits are de-energized; in rare cases when live work is required, a live-work permit must be obtained and approved by a senior embassy official to ensure that the work is essential and all other appropriate safety measures will be employed.

The Office conducts exposure and health risk assessments if exposure concerns such as asbestos or mold are present at a facility, coordinating with the Department's Office of Medical Services as necessary (see Chapter 6). The Office of Safety, Health and Environmental Management specifies the standards for any required mitigation. If the required work exceeds a post's capabilities, OBO's Office of Facility Management is responsible for cleaning up or removing such risks (see Chapter 19).

Aspects of environmental health and safety management also include indoor air quality, drinking water safety, children's exposure to lead, and safe petroleum fuel storage. At many posts, consistently high levels of air pollution are a concern. Many of the Department's newer facilities have modern filtration systems, but the Office of Safety, Health and Environmental Management works with posts and OBO engineers to develop mitigation strategies in older or leased buildings and for staff housing. OBO also provides point-of-use devices to improve water quality at staff residences. An active integrated pest management program (IPM) addresses offices and staff housing, and Post Occupational Safety and Health Officers receive special training on IPM and pesticide safety. The Office of Safety, Health and Environmental Management works closely with OBO's Cultural Heritage Office when pests threaten valuable objects (see Chapter 21). At most posts, fuel must be safely stored on-site. The Office of Safety, Health and Environmental Management assists with assessments following leakage or spills from fuel tanks, and with cleaning up and restoring operations after a fire or attack.

CHAPTER 21

CULTURAL HERITAGE, ART IN EMBASSIES, AND RESIDENTIAL DESIGN

LONG-TERM OPERATIONS

CULTURAL HERITAGE, ART IN EMBASSIES, AND RESIDENTIAL DESIGN

OBO's portfolio includes several types of properties that receive special attention and care. OBO works to maintain and preserve our historic properties that are architecturally, historically, or culturally significant. Any modification to these buildings must be carried out with particular attention to maintaining and continuing the design intent of the original structure and features. Daily Facility Management is also conducted with special consideration to preserving and protecting these assets. OBO is also responsible for the overall stewardship of the State Department's antiques, works of art, and other cultural heritage objects.

The Office of Art in Embassies curates permanent and temporary exhibitions at the Department's functional and representational facilities. These incorporate the best of American and local art to encourage cross-cultural communication, and are the impetus for exchanges and other cultural programs.

Representational residences—Chief of Mission Residences, Deputy Chief of Mission Residences, and Principal Officer's Residences—play a dual role. They are a place for formal and informal gatherings in which our diplomats represent the interests of the United States at various official functions, from small dinner parties to large events. They are also a home for the diplomats and their families, and must be able to fill the needs of several families in sequence, as diplomats regularly rotate in and out of each position abroad. OBO therefore furnishes these residences, and refurbishes them regularly.

Cultural Heritage

The U.S. government owns and occupies a number of historic properties that are architecturally significant, uniquely linked to the history of American diplomacy, or culturally important to the host nation. Stewardship of these facilities conveys our nation's respect for the local heritage and in so doing, supports U.S. foreign policy objectives. The Department therefore strives to maintain and preserve its historic inventory, supplementing standard facility management resources and practices accordingly (see Chapter 19). OBO is also committed to the proper renovation of historic structures—including mid-century

buildings—that require it. The Office of Cultural Heritage provides posts with support and training on the proper care and conservation of culturally significant buildings and objects. In some cases, the Department has utilized public-private partnerships to help in the preservation of historical and culturally significant assets.

The most architecturally, archaeologically, or historically significant of these properties are listed on the Secretary of State's Register of Culturally Significant Property. The Register is available at the State Department's website (www.state.gov). It includes chanceries and ambassador's residences, as well as a handful of other properties that serve various diplomatic functions. OBO oversees the Register and identifies other significant buildings in the Department's portfolio based on original research. The Office of Cultural Heritage maintains a working list of around 150 culturally significant properties at various posts.

Historic preservation seeks to protect and preserve property listed in the Secretary of State's Register and other legacy property by instituting care and protection practices that are compatible with international standards of conservation, especially those of the host country. Historic preservation strategies include: restoration (reviving the original concept or condition), rehabilitation (modernization without adaptive alteration), and reconstruction (whole use of new compatible materials and traditional techniques). The goal in undertaking one of these projects is to ensure that the Department's twenty-first century needs are met without damaging or degrading the property.

Any modification to a significant, historic building must be carried out with particular attention to and consideration of the design intent of the original structure and features. Major rehabilitations and small-scale renovations must be executed with the same level of care and attention to detail. Some facilities are covered by the host nation's preservation laws; OBO assists these posts in complying with local historic preservation requirements. OBO can also locate and recommend local or regional conservators and assist post with evaluating their results. Compliance with local and U.S. standards must be confirmed to ensure that the property's cultural significance is not compromised. In the case of major

rehabilitation or renovation projects, OBO can lead the preservation effort. When modifications of any size are planned or sought by the post, OBO must review the scope of work and any work orders to identify, avoid, and mitigate any adverse effects.

OBO creates or commissions Historic Structures Reports to assist with facility management of historically or culturally significant properties, and to provide guidance when a major rehabilitation project is planned for that post (see Chapter 9). These reports identify the primary features of a property, provide insight into the original construction of the facility, and document the cultural significance of the diplomatic mission. The report forms the basis for future preservation of the facility, documenting the extent of the preservation required, the best methods to ensure proper stewardship, and guidelines to direct the project's design from a preservation perspective. Archaeological resources are identified, documented, and protected in coordination with the host country.

OBO educates various constituencies, including post management and Facility Managers, on the importance of cultural resources and the proper care and maintenance of architectural features and fixtures, interior elements, and objects. This information is available through a variety of media including distance learning, professional training programs, and other initiatives.

OBO is also responsible for the overall stewardship of over 18,500 Cultural Heritage assets—State Department-owned antiques, works of art, and other cultural heritage objects maintained in some 200 posts throughout the world. OBO assists posts in identifying their fine and decorative art objects based upon their historic importance, antiquity, rare quality, or intrinsic value. OBO provides guidance to posts to ensure the appropriate assessment, documentation, and maintenance of these items.

Cultural Asset Managers in Paris, London, Rome, and Buenos Aires provide professional-level conservation and maintenance support to heritage property under the post's ownership. Working closely with OBO, they catalog each item, manage maintenance and repairs, develop and document maintenance program techniques, and conduct training sessions for local staff in proper housekeeping and handling techniques.

Art in Embassies

Like architecture, art is a means of communication that transcends linguistic barriers, and an important part of U.S. cultural diplomacy. The Office of Art in Embassies is a public-private partnership with a focused mission of cross-cultural exchange, responsible for the permanent installation of original works by local and American artists at U.S. diplomatic facilities. The office engages with over 20,000 participants around the world, including artists, museums, galleries, universities, and private collectors.

The curators and registrars of the Office of Art in Embassies select or commission works to create collections of work from American and local artists that highlight ties between the United States and the host nation (see Chapter 15). Funding for the purchase of art for most new U.S. embassies and consulates is included as part of the project budget, allocated at 0.5% of the value of the construction project. This percentage is in line with, and in some cases lower than, other agency art budgets. Much of the art is purchased below the commercial market price. Proposed donations are accepted as deemed appropriate and in accordance with the Department's gift acceptance authorities. A post's existing works of art, antiques, and other cultural heritage objects can also be exhibited in a new building.

Art in Embassies fosters relations with local communities worldwide. Its educational and cross cultural exchanges foster a greater understanding and appreciation for both American culture and the cultures of our host countries. The Office's educational programs partner with various entities including the Rhode Island School of Design, the San Francisco Art Institute, and Washington, D.C.'s THEARC community center. Its annual International Medal of Arts Award honors outstanding commitment and contributions to the AIE program, which has played a leading role in U.S. public diplomacy for over 50 years.

The office has also worked closely with the non-profit Foundation for Art and Preservation in Embassies, which has donated permanent works of art for U.S. embassies worldwide. Founded in 1986, this public-private partnership has placed works by more than 200 artists in more than 140 countries, including annual donations of original prints by distinguished American artists.

Representational Residences

Representational residences such as Chief of Mission Residences, Deputy Chief of Mission Residences, and Principal Officer's Residences are refurbished on a regular rotating cycle. If a residence is scheduled for design review under the regular refurbishment program, or for new construction (for residences that must be on an embassy complex for security reasons), one of OBO's residential interior designers travels to post to review the existing residence and assesses its interior design needs. The designer then creates detailed plans and selects the furnishings that will be installed in each residence.

The representational residences are designed to be functional, dignified entertaining facilities that are not ostentatious or difficult to maintain. They should provide a space that is welcoming, attractive, and safe for occupants and their guests. The décor should represent the United States and its products in the design, while respecting local customs and traditions, and being sensitive to the image projected to the host country. Where possible, local products of good quality may be used to complement the American furnishings; however, the overall design will reflect American design and products. The existing furnishings, architectural finishes, and environment often determine the furniture styles and color palette of the representational areas. While OBO accommodates the preferences of the current residents to the degree possible, each refurbishment is intended to last for the duration of several occupants' terms.

The timeline for a scheduled design project (encompassing an entire residence) is approximately 12-18 months, from the initial assessment visit until new furnishings are installed. This allows for the designer's selection of furnishings, order processing, product manufacturing, and shipment of goods.

If an occupant of an official representational residence wishes to contract with a private interior designer at their own cost, the Office of Residential Design and Furnishings must approve the choice of a designer and all designs. The Department accepts the work as a gift through the required procedures. RDF must also review and approve any alterations to representational residences proposed by a post.

The Office of Art in Embassies produces temporary exhibitions of original works by American artists for the representational spaces of Chief of Mission Residences worldwide. The exhibition remains in place for the duration of the ambassador's term. The curators typically design each temporary exhibition around a particular theme or artistic style in collaboration with the ambassador. The exhibitions frequently focus on connections between American culture and those of the host countries, presenting a more nuanced view of the United States than is readily evident in popular culture. The majority of art is on loan from artists, galleries, museums, foundations, estates, and private and corporate collections.



**U.S.
DEPARTMENT
OF STATE**

**BUREAU OF
OVERSEAS BUILDINGS
OPERATIONS**

JULY 2016